



**Council of European Dentists**

# **MANUAL OF DENTAL PRACTICE 2014**

## **Netherlands**

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**Authors:**

**Dr Anthony S Kravitz OBE**

**and**

**Professor Alison Bullock**

**Professor Jon Cowpe**

**with**

**Ms Emma Barnes**

*Cardiff University, Wales, United Kingdom*

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#### **About the authors<sup>2</sup>**

**Dr Anthony Kravitz** graduated in dentistry from the University of Manchester, England, in 1966. Following a short period working in a hospital he has worked in general dental practice ever since. From 1988 to 1994 he chaired the British Dental Association's Dental Auxiliaries' Committee and from 1997 until 2003, was the chief negotiator for the UK's NHS general practitioners, when head of the relevant BDA committee. From 1996 until 2003 he was chairman of the Ethics and Quality Assurance Working Group of the then EU Dental Liaison Committee.

He gained a Master's degree from the University of Wales in 2005 and subsequently was awarded Fellowships at both the Faculty of General Dental Practice and the Faculty of Dental Surgery, at the Royal College of Surgeons of England.

He is an Honorary Research Fellow at the Cardiff University, Wales and his research interests include healthcare systems and the use of dental auxiliaries. He is also co-chair of the General Dental Council's disciplinary body, the Fitness to Practise Panel.

Anthony was co-author (with Professor Elizabeth Treasure) of the third and fourth editions of the EU Manual of Dental Practice (2004 and 2009)

President of the BDA from May 2004 until May 2005, he was awarded an honour (OBE) by Her Majesty The Queen in 2002.

**Professor Alison Bullock:** After gaining a PhD in 1988, Alison taught for a year before taking up a research post at the School of Education, University of Birmingham in 1990. She was promoted to Reader in Medical and Dental Education in 2005 and served as co-Director of Research for three years from October 2005.

She took up her current post as Professor and Director of the Cardiff Unit for Research and Evaluation in Medical and Dental Education (CUREMeDE) at Cardiff University in 2009. With a focus on the education and development of health professionals, her research interests include: knowledge transfer and exchange; continuing professional development and impact on practice; workplace based learning.

She was President of the Education Research Group of the International Association of Dental Research (IADR) 2010-12.

**Professor Jonathan Cowpe** graduated in dentistry from the University of Manchester in 1975. Following training in Oral Surgery he was appointed Senior Lecturer/Consultant in Oral Surgery at Dundee Dental School in 1985. He gained his PhD, on the application of quantitative cyto-pathological techniques to the early diagnosis of oral malignancy, in 1984. He was appointed Senior Lecturer at the University of Wales College of Medicine in 1992 and then to the Chair in Oral Surgery at Bristol Dental School in 1996. He was Head of Bristol Dental School from 2001 to 2004.

He was Dean of the Faculty of Dental Surgery at the Royal College of Surgeons in Edinburgh from 2005 to 2008 and is Chair of the Joint Committee for Postgraduate Training in Dentistry (JCPTD). He has been Director of Dental Postgraduate Education in Wales since 2009. His particular interest now lies in the field of dental education. He was Co-ordinator for an EU six partner, 2-year project, DentCPD, providing a dental CPD inventory, including core topics, CPD delivery guidelines, an e-learning module and guidelines (2010-12).

**Ms Emma Barnes:** After completing a degree in psychology and sociology, Emma taught psychology and research methods for health and social care vocational courses, and later, to first year undergraduates. Following her MSc in Qualitative Research Methods she started her research career as a Research Assistant in the Graduate School of Education at the University of Bristol, before moving to Cardiff University in 2006, working firstly in the Department of Child Health and then the Department of Psychological Medicine and Clinical Neurosciences.

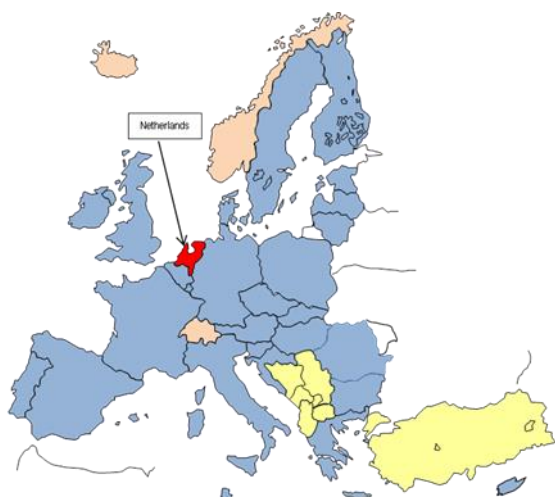
In 2010 Emma joined Cardiff Unit for Research and Evaluation in Medical and Dental Education (CUREMeDE) as a Research Associate. Working in close collaboration with the Wales Deanery, (School of Postgraduate Medical and Dental Education), her work focuses on topics around continuing professional development for medical and dental health professionals, and knowledge transfer and exchange.

<sup>1</sup> CED Brussels Office, Avenue de la Renaissance 1, B - 1000 Brussels, Tel: +32 - 2 736 34 29, Fax: +32 - 2 732 54 07

<sup>2</sup> The authors may be contacted at [AnthonyKravitz@gmail.com](mailto:AnthonyKravitz@gmail.com)



## The Netherlands



In the EU/EC since	1957
Population (2013)	16,789,800
GDP PPP per capita (2012)	€32,489
Currency	Euro
Main language	Dutch
Health care is provided by a government-regulated system of health insurance. There are schemes which an individual may belong to, public schemes (sick funds), or private for higher earners. The public scheme is compulsory for those under 65 on low incomes.	
Number of dentists:	12,169
Population to (active) dentist ratio:	1,914
Membership of the Dutch DA (NMT):	76%
Whilst the use of specialists is limited to orthodontics and maxillo-facial surgery, there is a broad use of dental auxiliaries. Continuing education is not mandatory.	

Date of last revision: 7<sup>th</sup> October 2013

### Government and healthcare in the Netherlands

The Netherlands is a small but densely populated country on the southern edge of the North Sea. It is both a constitutional monarchy and a parliamentary democracy. There are 12 provinces and 408 (2013) municipalities and there is substantial decentralisation of government responsibility, especially in education, transport and health.

The Dutch Parliament consists of the House of Representatives (150 members, elected in direct elections by universal suffrage) and the Senate (75 members, elected by the members of the Provincial Councils). The capital is The Hague.

The Health Care Insurance Act of 2006 provides a compulsory basic insurance for all Dutch citizens. This basic insurance contains a standard package of necessary, mostly curative health care.

All other health care can be additionally insured or paid for privately.

Both the basic insurance and the additional insurances are underwritten by private insurance companies. Every individual person is free to choose a health care insurer, whilst, as far as it concerns the basic insurance health care insurers have a duty to accept applications from every individual seeking the insurance.

Insurance companies are expected to compete for customers by lowering their premiums.

Regarding supervision within the health care system, an important role is set aside for the National Health Care Authority, which guards the content and the quality of care, as well as the honest competition between insurance companies and healthcare providers.

There is a predetermined budget for healthcare, set by the government.

	Year	Source
% GDP spent on health	15.4% 2012	Min of Health
% of this spent by government	94.3% 2012	Min of Health



## Oral healthcare

### Public Healthcare

Almost all dentistry is provided by dentists working in general practice. Approximately 69% of the population is registered in the public system.

Although dental treatment is provided under the private system, there is a national scale of maximum fees. Amounts are set each year by a government appointed body, the National Health Care Authority.

Dental care in the basic care insurance package contains preventive and curative treatment of all juveniles up until their 21th birthday, the cost of a full set of dentures, and care for specific groups of patients, for example persons with a physical and/or mental handicap.

All other oral health care, including all preventive and curative dental care for grown ups and all orthodontic care, can be additionally insured or paid for privately.

Patients will normally attend for their re-examinations about every 9 months. There is no formal system for domiciliary care.

In 2012, the total expenditure on healthcare costs (welfare excluded) was 67.7 milliard of which 2.9 milliard was spent on oral healthcare (4.3 %). This second figure refers to expenditure outside the basic insurance.

	Year	Source
% GDP spent on oral health	0.66% 2012	NMT
% of OH expenditure private	74% 2007	CBS/CVZ

### The Quality of Care

The quality of dental care is monitored by the profession in different ways and emphasis is placed on improvement and assurance rather than control. Quality improvement is achieved through continuing education, peer review and the development of standards and certification. The Individual Health Care Professions Act (BIG Act) was introduced for the whole of health care and dentistry on December 1<sup>st</sup> 1997. Its purpose was to promote and monitor the quality of professional practice across the whole of health care and to protect the patient against inexpert and negligent treatment by professional practitioners. The Act has four significant consequences for dentistry, a change in the revised regulation of qualification, new registration by law, quality assurance and a revised disciplinary code. The act replaced a number of existing and out of date laws.

A Dutch Health Inspectorate makes occasional visits to practices. Their checklist for screening dental practices covers:

- clinical practice,
- infection control,
- waste disposal,
- radiation practice.

They are able to issue warnings and initiate disciplinary procedures (see later).

### Quality Register

In 2007, the Stichting Kwaliteitsregister Tandartsen (Institute for a Quality Register for Dentists) was established with the objective of creating transparency in dentists' quality care, and thereby contributing to patient safety. In order to achieve this, the Stichting maintains a register of dentists who meet five Registration standards which, in broad outline, are the following:

- unconditional registration in the BIG register;
- observing the code of conduct and guidelines, both practical and otherwise;
- studying specialist literature (240 hours in five years);
- following extra training and refresher courses and consulting with colleagues;
- having a complaints procedure in place;
- perform patient interviews every five years
- run a visitation every five years (this is an official visit for the purpose of inspection or examination by colleagues).

Since 1 July 2007, this Quality Register has been available to the public.

### Health data

	Year	Source
DMFT at age 11	0.70 2011	TNO
DMFT zero at age 11	73% 2011	TNO
Edentulous at age 75	53% 2009	CBS

TNO = "Innovation for Life" CBS = "The Central Bureau for Statistics"

These figures are for a slightly different age group than other countries

"DMFT zero at age 12" refers to the number of 12 years old children with a zero DMFT. "Edentulous at age 65" refers to the numbers of over 64s with no natural teeth.

### Fluoridation

There are no water or other fluoridation schemes.

## Education, Training and Registration

### Undergraduate Training

To enter dental school a student needs diploma VWO (secondary education) with physics, chemistry and biology and no entry examination. There is no vocational entry, such as from being a qualified dental auxiliary.

Year of data:	2013
Number of schools	3
Student intake (2012/13)	243
Number of graduates (2012/13)	268
Percentage female	57%

Dental schools are parts of Colleges/Faculties of Medicine in the universities. All the dental schools are state-funded. The students have to pay to go to university. Training lasts for 6 years.

The Ministry of Education and Science monitors the quality of the training, and the Council of the Faculty is directly responsible.

### Qualification and Vocational Training

#### Primary dental qualification

Upon qualification, the graduates receive the title "Bachelor of Science" after 3 years, then after the fifth year "Master of Science (MSc)". In full the title is: '*Universitair getuigschrift van een met goed gevolg afgelegd tandartsexamen*'.

The title "dentist" is reserved to those who are registered in the "BIG" register (see below, "Registration").

#### Vocational Training (VT)

No post-qualification vocational training is necessary for entering into full, unsupervised practice.

### Registration

In order to register as a dentist in the Netherlands, an applicant must hold a diploma from a Dutch dental school. A formal application with appropriate dental certificates must be made to the Ministry of Public Health Welfare and Sport (or *het ministerie van VWS*).

Dentists who have graduated outside the Netherlands can apply for recognition of their degree and ask for a declaration of professional quality, which may allow them to be registered in the national register.

After the introduction of the Individual Health Care Professions Act, people are able to call themselves dentists if they, on presentation of the required documents – including the full the title '*Universitair getuigschrift van een met goed gevolg afgelegd tandartsexamen*' (ie recognition and declaration of professional quality), have had themselves registered as such by the National Health Register (BIG-register). The title is

legally protected. Its use without registration is punishable by law.

Cost of registration (2013)	€ 80
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#### Language requirements

It should be noted that a reasonable command of the Dutch language is essential in order to practise in the Netherlands (although there is no absolute measure of this).

For dentists from outside EU/EEA this is measured by a committee under responsibility of the Ministry of Health.



### Further Postgraduate and Specialist Training

#### Continuing education

Continuing postgraduate education is not compulsory for dentists. This is normally provided by universities and private organisations.

#### Specialist Training

In the Netherlands two dental specialties are recognised:

-  Oral and Maxillo Facial Surgery
-  Orthodontics

The Ministry of Health has delegated the responsibility for registration of all specialists to the Specialist Registration Board '*Specialisten-Registratiecommissie* (SRC)' - which is appointed by the Board of the NMT. However, any changes to the registration procedure have to be approved by the Ministry.

Orthodontic training lasts four years and takes place at two dental schools: Nijmegen and Amsterdam (ACTA). Trainees are paid by the university.

The title on completion of training is '*Getuigschrift van erkenning en inschrijving als orthodontist in het Specialistenregister*' (a certificate showing that the person concerned is officially recognised and that their name is entered as an orthodontist in the specialists' register), issued by the Specialists Registration Board.

Oral and Maxillo-facial Surgery requires four years at one of five training facilities in university hospitals. To undertake this training a student requires a medical and dental qualification. Students are paid by the hospital.

On completion of training the title given is '*Getuigschrift van erkenning en inschrijving als kaakchirurg in het Specialistenregister*' (a certificate showing that the person concerned is officially recognised and that his name is entered as an oral surgeon in the specialists' register), issued by the Specialists Registration Board.

## Workforce

### Dentists

The Dutch Dental Association (NMT) has reported that the active workforce is decreasing, but in 2013 there was a balance between supply and demand.

Year of data:	2013
Total Registered	12,169
In active practice*	8,773
Dentist to population ratio**	1,914
Percentage female	35%
Qualified overseas	818
* dentists under 65 years with private or practice address in the Netherlands	
** active dentists only	

In 2013 about 48% of the dentists in active practice were over 50 years of age.



#### *Movement of dentists into and out of the Netherlands*

Also in 2013, about 9% of the dental workforce had qualified outside the Netherlands. The number of dentists with foreign qualifications entering the Netherlands to work is increasing each year. This is evident from the Capacity Plan 2013 that was published by the *Capaciteitsorgaan*, a foundation for advanced medical and dental programmes.

There is no major movement of Dutch dentists out of the Netherlands.

### Specialists

There are 2 classes of dental specialists in the Netherlands:

-  Orthodontics
-  Oral Maxillo-Facial Surgery

The ratio of dental specialists to dentists is about 1:14.

Numbers under the age of 64 years who are registered to work are in the following tables:

Year of data:	2013
Orthodontics	331
Oral Surgery	
OMFS	265

Patients may attend specialists directly, but usually they go by referral from a primary dentist. Specialists can apply a different scale of fees from general practitioners.

Oral and maxillofacial surgeons work mainly in hospital and universities. Most orthodontists work in private practice, although some work in universities.

Some general practitioners focus on a special field within dentistry such as endodontics, periodontics and paedodontics. They are not specialists but general practitioners with a *special interest* (differentiation).

Year of data:	2013
Endodontics	73
Paedodontics	46
Periodontics	81
Prosthodontics	
Oral Radiologists	
Dental Public Health	

### Auxiliaries

In the Netherlands there are dental assistants, dental technicians and two other groups who provide clinical oral health care, dental hygienists and denturists.

Year of data:	2013
Hygienists	3,200
Technicians (2011)	5,000
Denturists	370
Assistants	19,000
Therapists	0
Other	0

All are estimated figures

### Dental Hygienists

Dental hygienists are paramedics with independent status. As such, they form an official profession who are required to be qualified and have a diploma. They train in special hygienist schools (not associated with dental schools), for 4 years full time. On completion of training they receive a diploma. However, they do not have to register, even if they own their clinic.

Most are employees in dental practices, some work in hospitals and centres for paediatric dentistry. However, hygienists may practise in a dental hygiene clinic, independently from a dentist, but all the treatment undertaken must have been referred by a qualified dental practitioner. Some hygienists with extra skills work as orthodontic auxiliaries.

There is a course where dental hygienists are taught how to provide routine dental treatment eg fillings, extractions for children. When the course is completed, a hygienist may practise paediatric dentistry, but again, only after referral from the dentist.

The NMT has developed a working protocol for the above relationships and advises dentists and hygienists to comply with it.

**Dental Technicians**

Dental technicians train in special schools, for 2-4 years, part time. On completion of training they receive a diploma, but are not required to register. Most dental technicians work in dental laboratories. They are permitted to produce dental technical work to the prescription of the dentist, but cannot work in the mouth.

There are about 1,100 dental laboratories (2006 figures).

**Denturists**

Qualified denturists train for 3 years part-time, after completion of training as a dental technician. Training is provided by the Dutch Denturist Federation. On completion of training they receive a further diploma. "Denturist" is a protected title, with an ethical/disciplinary system administered by the Denturist Federation.

Denturists are only allowed to provide full dentures and may work in independent practice.

**Dental Assistants**

There is 'certified training' available for dental assistants in the Netherlands but although there are approximately 30 training schools and a postal course, most assistants are trained by individual dentists in their practices.

Assistants have a wide range of duties but can only carry out 'reserved procedures' when authorised by a dentist who is satisfied that he/she is competent to do so. In all cases, the responsibility for the care provided remains with the dentist. Because of a shortage of dental hygienists, some assistants also carry out scalings but not root planing - this is permitted under the Individual Health Care Professions Act (BIG).





## Practice in the Netherlands

Year of data:	2013
Gen practice (owners)	7,070
Gen practice (locums)	1,700
Public dental service (2007)	250
University	110
Academic (non-univ)	0
Hospital (all OMFS) (2007)	214
Armed Forces	30
General Practice as a proportion is	100%
Number of general practices	5,600

*All the above figures are approximate*

### Working in General Practice

Dentists who practice on their own or as small groups, outside hospitals or schools, and who provide a broad range of general treatments are said to be in *General Practice*.

Dentists in general practice are mainly self-employed.

Approximately 77% work in their own general practice - about 60% of which are "single-handed" practices (only one dentist in the practice). The remainder work in practices of two or three dentists, with a few larger groups. About 1,700 dentists (so called 'ZZP'; independent without personnel) work as locums. Within group practices responsibilities are shared, work is discussed and some dentists concentrate on different types of care.

The average number of patients visiting the dental practice each year is approximately 2,900 (2011).

#### *Fee scales*

There is a fee scale of maximum charges, and dentists bill every treatment. The maximum fees are set by the Health Care Authority (NZA).

#### *Joining or establishing a practice*

There are no rules which limit the size of a dental practice in terms of the number of associate dentists or other staff. Premises may be rented or owned. There is no state assistance for establishing a new practice, so usually dentists take out commercial loans from a bank. The NMT has a special service for introducing young dentists as locums to established practices and recommends that new dentists work in several practices to gain experience before choosing which to buy.

Anyone can own a dental practice, and there is also provision for them to be run as companies. NMT has a service to help in the selling and buying of dental practices. It puts buyers and sellers in contact and also has business advisers. It is possible to sell the goodwill of a practice and often the equipment is sold, as well as the building.

The only restrictions on setting up practice are planning laws and it is not possible to open premises in residential areas. However the local councils often allow dentists to establish themselves in new estates and also designate areas as suitable for the dentist. There are no access problems for patients living in rural areas but there are some shortages of dentists working in inner city areas and some specific social groups are having trouble accessing dental care.

Private practices are mostly housed in separate practice buildings (about 72%) or in/next to the private house of the dentist (15%) (in 2008).

### Working in Public Clinics

Apart from the extension of coverage of the public sick funds, to provide dental care for card-holding children and handicapped people, there is no separate public dental service in the Netherlands. There is, however, a small dental service for schools which is run as a private business. A public medical service provides some information on prevention, statistics and advises the Ministry of Health.

The Ivory Cross, which specialises in dentistry, is an organisation which is subsidised by the Ministry of Health and the NMT. It produces leaflets with general information on dental care, and also more specific information for the public, for example "amalgam in dentistry".

Very few dentists are employed in these public health clinics.

Epidemiological surveys are undertaken by TNO, Quality of Life, Leiden and St Radboud University Medical Centre, Department of Preventive and Restorative Dentistry, Nijmegen.

### Working in Hospitals

There are no organised hospital dental services in the Netherlands, except for oral maxillo-facial surgery. In-patients receive their general care from their regular dentist.

### Working in Universities and Dental Faculties

The dental schools are part of universities as dental faculties, in which about dentists work full or part-time as employees of the university. They are free to combine their work in the faculty with part-time work elsewhere, for example in private practice.

The main title within a Dutch Dental Faculty is that of university professor. Other titles include university assistant, university lecturer and university head lecturer. There are no formal requirements for postgraduate training but professors and university head lecturers must have a doctorate. Professors are appointed on the basis of their publications and teaching. Approximately 70% of an academic's time is spent teaching. In general salaries are lower than for dentists who are in practice.

### Working in the Armed Forces

A few dentists serve full-time in the Armed Forces.



## Professional Matters

### Professional associations

Main national association is the *Nederlandse Maatschappij tot bevordering der Tandheelkunde* (NMT) or Dutch Dental Association.

	Number	Year	Source
Nederlandsche Maatschappij tot Bevordering der Tandheelkunde	7,161	2013	NMT

The NMT is an association according to private law. A dentist is free to become a member or not. Three quarters of dentists and dental specialists are members of the NMT. The NMT is governed by a board of four dentists who are appointed by the General Assembly. The GA exists of representatives of the Regional Boards. The NMT has as its objectives the promotion of dentistry in general and the advancement of the intents of the dental profession.

The Association publishes an advice booklet on 'Practising Dentistry in the Netherlands'.

There are several associations and societies for dentists with special interests. These are best contacted via the NMT.

### Ethics

#### *Ethical Code*

Dentists in the Netherlands have to work within an ethical code which covers relationships and behaviour between dentists, contracts with patients, consent and confidentiality, continuing education and advertising. This code is administered by the NMT. Also, if a patient visits a dentist with a problem such as pain, then under Dutch law the dentist is obliged to see him. However, the dentist is not required to accept the patient on a regular basis.

The ethical code also states that when established patients (those who receive regular care from that dentist) face financial difficulties a dentist must continue to treat them. The dentist must make considerable efforts to obtain the money and to finish complicated treatment, for example endodontics, before discontinuing treatment, although this is not a formal part of the ethical code.

There are no specific contractual requirements between practitioners working in the same practice but a dentist's employees are protected by the National and European laws on equal employment opportunities, maternity benefits, occupational health, minimum vacations and health and safety.

#### *Fitness to Practise/Disciplinary Matters*

Patient complaints may be handled in three ways. There is a general disciplinary law for the health care professions. Under this law patients' complaints are considered by one of five regional medical disciplinary boards. Board membership is 2 lawyers (including the chairman) and 3 dentists. Sanctions may be a warning, a reprimand, a fine or suspension/removal from

the register. Any appeal will be heard by a board of 3 lawyers (including the chairman) and 2 dentists.

The NMT also has a system, which conforms to legislation, where patients and colleagues can register a complaint against a member of the Association. Dentists who are not NMT members must set up their own complaints procedures.

As a last resort, the patient has the option of starting a civil lawsuit against the dentist.

#### *Advertising*

Dentists working in the Netherlands must follow rules of conduct which control advertising. After changes in the law in 1997 a rule was adopted for the advertising code established by the NMT, which reads as follows:

*"In co-operating or engaging in publicity, the dentist shall ensure that such publicity is not in conflict with the law, the truth or good taste, is in accordance with the due care that befits a dentist, and does not infringe on the goal of a mutual relationship between colleagues that is based on courtesy and trust. Publicity may not be intended to attract clients".*

A dentist may publish a website, but must ensure that this is according to the rules on advertising (these incorporate the principles of the CED Code of Practice).

#### *Data Protection*

Regulations are in place in the Netherlands which enact the Data Protection Directive. The CBP (College Bescherming Persoonsgegevens) is responsible for the administration.

#### *Indemnity Insurance*

Indemnity insurance is not compulsory for dentists and is provided by general insurance companies. The NMT has an arrangement with a company to provide more favourable premiums for its members.

General insurance covers damage to persons, property, capital liability (as the owner of dental premises) and employer liability. Prices are the same for all dentists who pay approximately €90 annually.

The indemnity insurance also covers dentists working in other European countries but only if their main activity as a dentist takes place in the Netherlands.

#### *Corporate Dentistry*

Dentists in the Netherlands may form limited liability companies and non-dentists may be members of the boards of such companies. Dentists can be in the minority on the Board.

#### *Tooth whitening*

The EU Regulations on Tooth Whitening was enacted in the Netherlands in November 2012.

There is no information about whether there is any continued illegal tooth whitening in the Netherlands.

## Health and Safety at Work

### *Ionising Radiation*

A practice needs a permit for using radiation equipment. The Health and Safety inspectorate of the Department of Social Affairs may also visit employers, but this rarely happens. They carry out surveys of risks but dentists are encouraged to undertake their own evaluation and the NMT has forms available for this.

Intraoral radiographs can only be taken by dentists. Panoramic xrays may be taken by hygienists who have been trained for the purpose. There is no continuing education requirement.

Under the influence of European regulations, a new Radiation Protection Decree was introduced on 1 January 2014. In the run-up to 1 January 2014, the NMT amended its Dental Radiology Practice Guidelines. The revised guidelines focus on a responsible and effective implementation of X-ray diagnostics in dental medicine and provide recommendations for the correct use of X-rays in dental diagnostics.

### *Hazardous waste*

Amalgam separators have been required in practices by law since 1997. Disposal of clinical waste may be only using certified companies.

### Regulations for Health and Safety

Based on Guidelines for Infection Control inoculation against Hepatitis B is mandatory for dental workers.

For	Administered by
Ionising radiation	Dutch Health Inspectorate
Electrical installations	No available information
Waste disposal	Dutch Health Inspectorate
Medical devices	No specific organisation. To a certain extent, the Dutch Health Inspectorate is involved.
Infection control	Dutch Health Inspectorate

## Financial Matters

### Retirement pensions and Healthcare

In the Netherlands there is a general law which provides all Dutch people over the age of 65 years with a monthly benefit. To supplement this most people take out a private pension. In general, a pension will be approximately 70% of final earnings. But, more and more the pension depends of the average earnings.

From 2013, the age of retirement is gradually being increased to 67, by 2021.

Self-employed professionals are not covered by the public health system, and therefore have to take out private health insurance policies. The annual premium for such private insurance will be a standard (or 'nominal') amount - €1,000 to €3,000 per year,

Normal retirement age is 65, but dentists may practice beyond that, in private practice.

### Taxes

There is a progressive tax on wages, profits, social security benefits and pensions. Thus there are tax brackets, each with their own tax rate. Mathematically, apart from discretisation (whole euros both for income and for tax), the tax is a continuous, convex, piecewise linear function of income:

For 2013, income tax for persons under 65 is as follows:

- For the part of income up to €19,645: 5.85% (plus mandatory Premium National Insurance 31.15%)

- For the part of income between €19,645 and €33,363: 10.85% (plus mandatory Premium National Insurance 31.15%)
- For the part of income between €33,363 and €55,991 : 42%
- On all income over €55,991 : 52%

### VAT

The standard rate is 21% (since October 2012). There is a reduced rate of 6% on foodstuffs, books, pharmaceuticals, medical, passenger transport, admission to cultural and amusement events, hotels, accommodation.

The lower rate of 6% is applied to dental materials or 21% on instruments and equipment.

### Various Financial Comparators

Amsterdam Zurich = 100	2003	2012
Prices (including rent)	81.0	67.3
Wage levels (net)	57.0	52.4
Domestic Purchasing Power at PPP	67.6	68.4

Source: UBS August 2003 & November 2012

## Other Useful Information

<b>Competent Authority:</b>	<b>Dental Association (including Specialist Training Board and main information centre):</b>
Ministerie van Volksgezondheid Welzijn en Sport Postbox 20350 2500 EJ 's-Gravenhage The Netherlands Tel: +31 70 34 07 911 Fax: +31 70 34 07 834 Email: Website: <a href="http://www.minvws.nl">www.minvws.nl</a>	NMT (Dutch Dental Association) Postbus 2000 3430 CA Nieuwegein The Netherlands Tel: +31 30 60 76 276 Fax: +31 30 60 48 994 Email: <a href="mailto:nmt@nmt.nl">nmt@nmt.nl</a> (NMT general) <a href="mailto:e.bruinsslot@nmt.nl">e.bruinsslot@nmt.nl</a> (Specialists Board) Website: <a href="http://www.nmt.nl">www.nmt.nl</a>
<b>National Health Inspectorate:</b>	<b>Other information centre:</b>
Staatstoezicht op de Volksgezondheid Inspectie voor de gezondheidszorg Address Postbus 16 119 2500 BC 's-Gravenhage The Netherlands Tel: +31 70 34 07 911 Fax: +31 70 34 05 140 Email: <a href="mailto:hi.higz@igz.nl">hi.higz@igz.nl</a> Website: <a href="http://www.igz.nl">www.igz.nl</a>	Ministerie van Volksgezondheid Welzijn en Sport Afdeling Buitenlandse Diplomahouders Postbus 16 114 2500 BC 's-Gravenhage The Netherlands Tel: +31 70 34 062 00 Fax: +31 70 34 05 966 Email: <a href="mailto:info@verwijspunt.nl">info@verwijspunt.nl</a> Website: <a href="http://www.verwijspunt.nl">www.verwijspunt.nl</a>
<b>National Health Care Authority:</b>	
Nederlandse Zorgautoriteit Address Postbus 3017 3502 GA Utrecht The Netherlands Tel: +31 30 29 68 111 Fax: +31 30 29 68 296 Email: <a href="mailto:info@nza.nl">info@nza.nl</a> Website: <a href="http://www.nza.nl">www.nza.nl</a>	

## Dental Schools:

<b>Amsterdam</b> Academisch Centrum Tandheelkunde Amsterdam (ACTA) Louwesweg 1 1066 EA Amsterdam Tel: +31 20 51 88 888 Fax: +31 20 51 88 333 Email: <a href="mailto:onderwijsbalie@acta.nl">onderwijsbalie@acta.nl</a> Website: <a href="http://www.acta.nl">www.acta.nl</a> Number of students: unknown, Intake in 2012/2013: 128	<b>Nijmegen</b> Universitair Medisch Centrum St. Radboud Philips van Leydenlaan 25 Postbus 9101 6500 HB Nijmegen Tel: +31 24 361 88 24 Fax: +31 24 361 88 04 Email: <a href="mailto:e.jilsiak@dent.umcn.nl">e.jilsiak@dent.umcn.nl</a> Website: <a href="http://www.umcn.nl">www.umcn.nl</a> Number of students: unknown, Intake in 2012/2013: 67
<b>Groningen</b> Universitair Medisch Centrum Groningen Academisch centrum Mondzorg Antonius Deusinglaan 1 9713 AV Groningen Tel: +31 50 36 33 092 Fax: +31 50 36 32 696 Email: <a href="mailto:acmg@umcg.nl">acmg@umcg.nl</a> Website: <a href="http://www.rug.nl">www.rug.nl</a> Number of students: unknown Intake in 2012/2013: 48	