ENGLISH-MEDIUM INSTRUCTION IN EUROPEAN MEDICAL SCHOOLS: AVAILABILITY AND DISTRIBUTION

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ABSTRACT

Background. English-Medium Instruction (EMI) is a popular trend in modern higher education. Statistical data indicate a constant increase in the number of English-Taught Programmes (ETP) and courses, and Europe is the world leader in EMI implementation. Programmes in Medicine and Health Sciences are not included in the group of main ETPs in the world, European indicators of their number are lower than global, but they also demonstrate an increase in the number. Since these programmes were not described in detail, the **aim** of our work was to study the availability, distribution, and features of ETPs in Medicine and Health Sciences in Europe.

Materials and Methods. Information from the websites of medical schools of the European Union/European Economic Area was studied using systematic analysis, comparative and bibliosemantic methods. The analysis covered 577 ETPs (160 higher education institutions from 26 countries where English has the status of a foreign language).

Results. EMI in Medicine and Health Sciences has been implemented in two forms: single medium and partial (bilingual). The leader in the total number of completely ETPs is the Netherlands. The most common are Master programmes. Single-cycle programmes in medicine, dentistry and pharmacology are available in the Baltic countries, Central East Europe, South East Europe, South West Europe. Bachelor programmes in English are the smallest in number and are offered in selected countries. Bilingual programmes were found in Spain, Austria, Luxembourg, and Sweden.

Conclusions. Teaching Medicine and Health Sciences in the medium of English is a common practice in the EU/EEA, but the choice of the type of teaching (single medium or bilingual) and the education level depend on the language policy of the country, the target group of students, and the internationalization strategy of a particular higher education institution.

Keywords: *English language, medium of instruction, English taught programme, higher education, medical higher education institution, Europe.*

Introduction

According to the most recent data, English is spoken by approximately 1.5 billion people worldwide [1]. 18.8% of the world's population speaking English make it the most-spoken language [2]. Moreover, the non-native speakers of English (1.1 billion) outnumber its native speakers (390 million) [1]. Besides, English remains the most popular language to study worldwide: in 2023, it was the number 1 language to study in 122 countries [3].

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At present, a domain where English is not used can hardly be found; it has become a global *lingua franca* in politics, diplomacy, economy, trade, traffic, logistics, media, entertainment, and academia, "a 'natural', spontaneously arisen domain where the choice of language has taken shape in something like an evolutionary process" [4, p.6]. Nowadays, English is the language of various academic events, research publications, and the medium of instruction in Higher Education Institutions (HEI) worldwide. The 2023 Duolingo Language Report states that "a large percentage of English learners in India (40%), Vietnam (50%), and China (54%) all cite education as the primary motivation for their language study" [3].

English-Medium Instruction (EMI) has experienced a significant rise in popularity in recent years, with more universities and schools world-

wide adopting it as a mode of instruction [5]. The report, *Mapping English-taught Programmes in Europe (2024)*, has demonstrated that owing to 43% on-campus and 58% online English-Taught Programmes (ETP) outside the US, Canada, UK, Australia, Europe has become a major supplier in the EMI market [6, p. 31]. The leaders, Ireland, Germany, and the Netherlands, offer over 2,000 on-campus ETPs each, while France, Italy, and Spain – more than 1,000 each [6].

The global list of the programmes in the highest demand shows that preferences differ from country to country. According to the report, the bulk of on-campus ETPs in non-English-speaking countries is made up by Business & Management, Engineering & Technology, Social Sciences, and Natural Sciences ("main disciplines"), while Medicine & Health are attributed to the group of so-called "staple disciplines", forming a part of nearly every country's on-campus ETP offer, but less common than programmes of the main group [6, p. 25] with the lowest share (5%) in the EHEA countries when compared to MENA (12%), East Asia (9%) and Sub-Saharan Africa (14%) or 8% in the world [6, p. 24], though the growth of +15% in the EHEA region has also been noted [6, p. 15].

Thus, statistics suggest availability and even growth in the number of English- medium programmes in Medicine and Health Sciences in Europe; however, they have not been described in detail. With this in mind, we **aimed** to assess the availability, distribution, and characteristic features of ETPs in Medicine and Health Sciences in Europe.

Materials and Methods

The investigation was conducted using system analysis, comparative and bibliosemantic methods. The medical HEIs of EU/EEA and Switzerland were chosen. The list of European medical schools was taken from the World Directory of Medical Schools (https://search.wdoms.org/) and was supplemented by the Internet search with the help of Google search engine using key words *English-medium instruction, medicine, Europe, study medicine in English in [country]*. Only the official sites of HEIs were selected for analysis. The sites of agencies were not considered due to possible bias. Ireland and Malta were excluded from the study as English is the only language of higher education in these countries. The medical schools were also excluded from the study in cases if: 1) the school did not have an English website on the day of the study; 2) the site was not accessible on the day of the study; 3) only the homepage was in English, but the details of the courses were described in the national language. The search was conducted in January 2025.

Our study involved 160 HEIs from 26 countries with a total number of 577 ETPs. The countries were grouped similarly to Watcher B. & Maiworm F. [7]: Baltic, Nordic, Central East Europe, Central West Europe, South East Europe, South West Europe.

We sought the answers to the following questions:

• Are ETPs in Medicine and Health Sciences available at the HEI of EU/EEA?

• What level programmes are they?

• Are there any specific features in the programmes' design?

• Are there medical schools that teach separate courses in English?

Results and Discussion

Within a short period contemporary higher education has adopted a new worldwide strategy, English-medium instruction. Several phenomena in social and political life are responsible for this; among them are the internationalization of higher education, the Bologna declaration, the formation of the European Higher Education Area, neoliberal trends in social life, and the role of English as a *lingua academica* [8, p. 2], an increasingly globalized higher education sector, student mobility, and integration initiatives such as the Erasmus programme.

The implementation of EMI programs is considered to be motivated by various reasons. From the policy makers' perspective, some of them may include: improving the learning of English, providing a common language of instruction in countries with multilingual populations, promoting economic competitiveness through developing an English-proficient workforce, producing graduates with global literacy skills, enabling institutions to attract international students, raising university rankings, increasing the prestige of an institution, promoting the competitiveness of universities, facilitating regional and international communication, developing students' intercultural communication skills [9].

It is considered that in Europe, the Netherlands pioneered EMI at the tertiary level of education in the early 1990s, introducing a programme specialized in international management [10]. In 2014, Wachter B. & Maiworm F. [7] published the data that demonstrated approximately tenfold growth in English-taught degree programmes in Europe between 2001 and 2014; such dramatic increase

allowed E. Macaro to call EMI an "unstoppable train" [11]. The 2024 research, conducted by the British Council and Studyportals Analytics and Consulting Team, has identified about 41,000 on-campus English-taught programmes offered by countries other than the UK, the US, Canada, and Australia. This makes 22.3% of total global ETPs [6, p. 5] and demonstrates increase by 48% since 2019 [6, p. 10]. Half of them are located in the European Higher Education Area (EHEA) [6, p.13].

English-medium instruction is defined as "the use of English language to teach academic subjects in countries or jurisdictions where the first language of the majority of the population is not English" [12, p. 2]. The countries under this study are those where English does not play any official role, is learned at schools as a foreign language, and is used for international communication, but despite its status in the EU/EEA countries, the English proficiency level there is relatively high. According to the EF English Proficiency Index, these countries occupy the leading positions in the world. Eight countries included in our study are ranked as *very high proficiency*, 15 – *high proficiency*, and only 3 – *moderate* [13, p. 4]. The countries of the Nordic group (except Finland) are characterized by very high English proficiency, while all the countries with the lowest scores (moderate proficiency) belong to South West Europe. Latvia was not included in the 2024 report, though in 2022, its rating was *high proficiency*.

EF EPI is compiled using the data of an online standardized, objectively scored test. The 2024 report is based on the test results of 2023 (2.1m adults in 116 countries and regions with a minimum of 400 test takers). The authors state that "EF EPI 2024 scores have been found to correlate strongly with TOEFL iBT 2022 scores (r=0.76) and IELTS Academic Test 2022 scores (r=0.58). These correlations show that, while these tests have different designs and test taker profiles, they reveal similar trends in national English proficiency" [13, p. 24]. It should be mentioned that EF EPI has been suffering criticism as "the data that EF uses are not representative of the population and suffer from self-selection bias" [14, p. 28], which was deemed fair by EF [13, p.24]. More objective analysis employing a different study design and large-scale testing will require serious monetary investment, therefore, it is unlikely to be undertaken. Nevertheless, despite the criticism, there is no other source of information rating English proficiency, and EF EPI is frequently cited in academic works.

Over the period of the investigation, we found ETPs in Medicine and Health Sciences at undergraduate and graduate levels in Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, the Netherlands Norway, Poland, Portugal, Romania, Slovakia, Spain, Sweden, and Switzerland. Slovenia and Iceland did not offer ETP in Medicine and Health, while in Liechtenstein Private University in the Principality of Liechtenstein offered only doctoral programmes.

Irrespective of the medium of instruction, the programmes leading to a degree in Medicine and Health Sciences are taught in two different ways: either as a long cycle (in other words, single or integrated cycle), which combines Bachelor and Master programmes in one (total >360 ECTS for medicine and >300 ECTS for dentistry) or as two separate short cycles – Bachelor and Master (240 ECTS and 120 ECTS, respectively). The long-cycle programs are medicine, dentistry, and pharmacy; this mode of instruction is practiced in Bulgaria, Cyprus, Croatia, Czech Republic, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Poland, Romania, Slovakia, Spain, and Sweden.

We managed to identify 577 ETPs; of them, Master programmes account for almost two-thirds, about a quarter are single-cycle programmes, and Bachelor programmes constitute a minority. *Figure 1* demonstrates the proportion of the ETPs in EU/EEA countries.

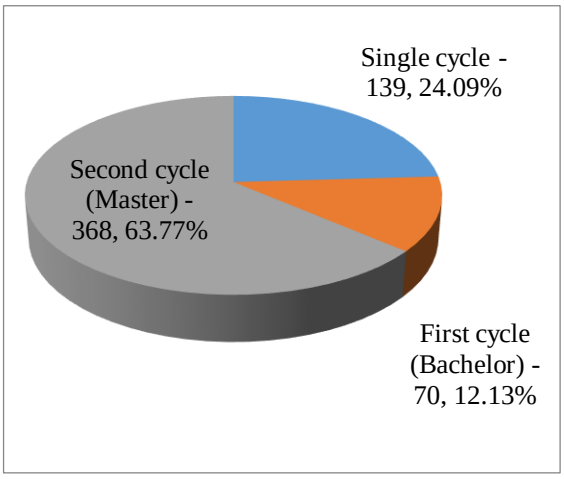


Fig.1. Undergraduate and graduate ETP in Medicine and Health in EU/EEA.

The region leading in the total number of the programmes is Central West Europe (160 ETPs); second in the total number of ETPs is Central East

Europe (111), followed by the Nordic region (99). Of the countries, the leaders are the Netherlands (95), Poland (64), Italy (41) and Sweden (41).

It should be noted that there are considerable regional differences in the levels of ETPs. *Figure 2* shows the distribution of the programmes by regions.

The most significant number of Master programmes was identified in Central West Europe. Following it is the Nordic region; South West Europe follows in the third place. South East Europe and Central East Europe lag behind with 26 institutions offering 22 Master programmes and 32 institutions offering 24 programmes, respectively. The leading position among Master programmes providers is held by the Netherlands, offering 84 programmes, followed by Sweden (37 programmes), Germany (34), and Denmark (34). These programmes are offered in a wide variety, for instance, Leiden University announced 22 programmes, namely *Biomedical Sciences, Bio-Pharmaceutical Sciences and Business Studies, Bio-Pharmaceutical Sciences and Education, Bio-Pharmaceutical Sciences and Industrial Pharmacy, Child and Adolescent Psychology, Clinical and Health Psychology, Clinical Psychology, Cognitive Neuroscience, Developmental Psychology, Economic and Consumer Psychology, Health and Medical Psychology, Health, Ageing and Society, Imaging and Intervention, Population Health Management, Sensing and Stimulation, Molecular Genetics and Biotechnology, Occupational Health Psychology, Population Health Management, Psychology, Research in Bio-Pharmaceutical Sciences, Technical Medicine, Transfusion Medicine and Cellular and Tissue Therapies*. The programmes are often multidisciplinary, innovative, involve high technology, and are fre-

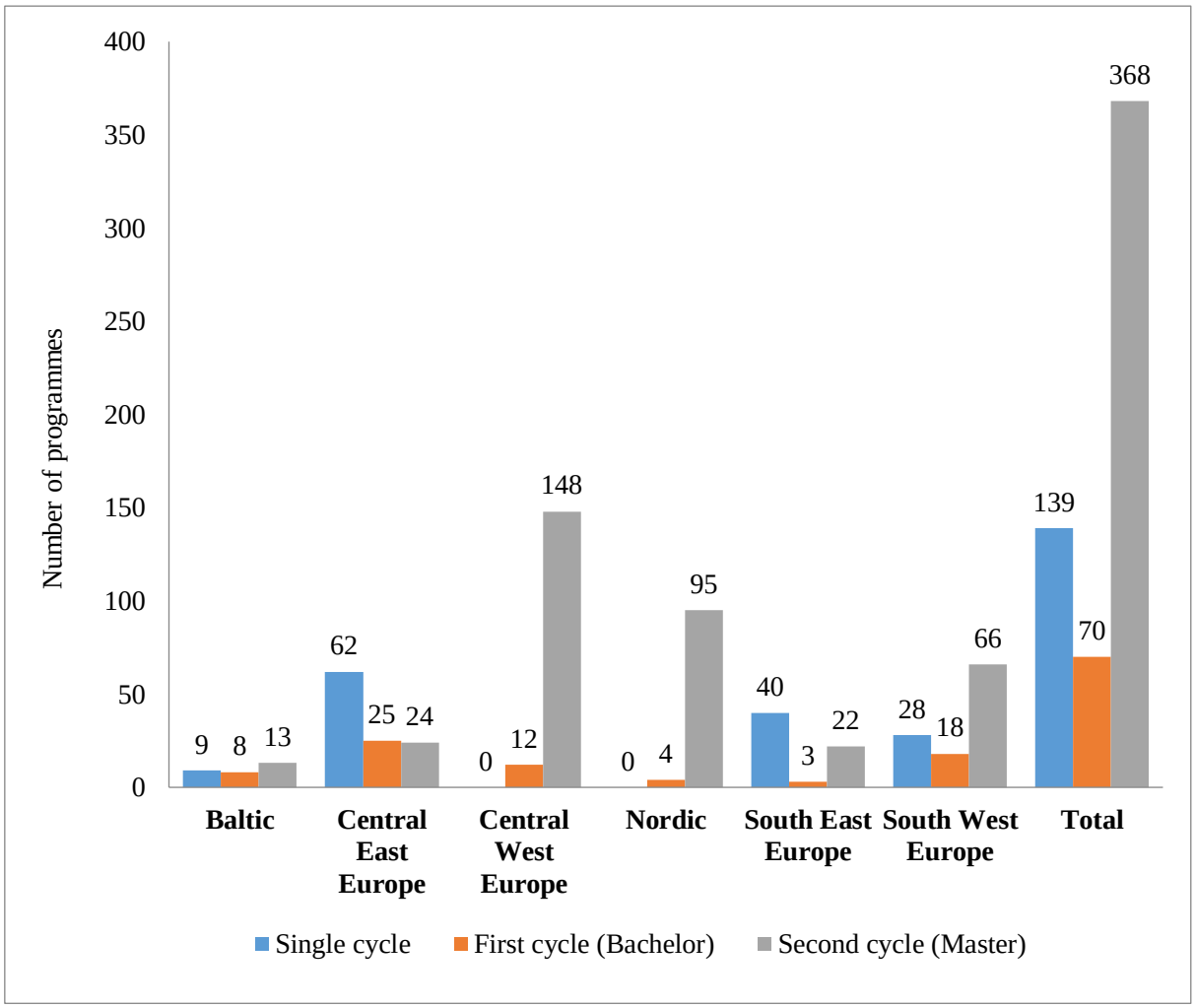


Fig. 2. Distribution of single-cycle, Bachelor, and Master programmes by regions.

quently research-oriented. For example, the Master programme *Biofabrication* at the University of Utrecht deals with 3D printing with a biomedical approach to prepare designed tissue constructs. It covers 3D bioprinting, biomaterials, 3D cell culturing, computer models and imaging. The programme *Bioinformatics and Biocomplexity* teaches how to apply biology, computer sciences, data sciences, and computational and mathematical modelling to understanding complex biological systems. *Cancer, Stem Cells and Developmental Biology* covers post-genomic research, including single cell and next generation sequencing, proteomics, metabolomics, and advanced microscopy techniques. *Figure 3* shows the proportion of Master programmes in EU/EEA countries.

In contrast, Master programmes taught in Baltic countries, Central East Europe, and South East Europe are traditional study areas oriented to clinical work. For example, the leader in the group, Poland, with its 16 medical schools, offers English-taught Master programmes in *Nursing, Midwifery (Obstetrics), Medical Biotechnology, Public Health, Dietetics, Cosmetology, and Clinical Psychology*.

English-taught Master programs were not identified in three countries: Romania (Central East Europe), Croatia, and Slovakia (South East Europe).

Bachelor-level ETPs (*Figure* 4) are not numerous and are mainly taught in Central East Europe. South West Europe follows it, while the policy of

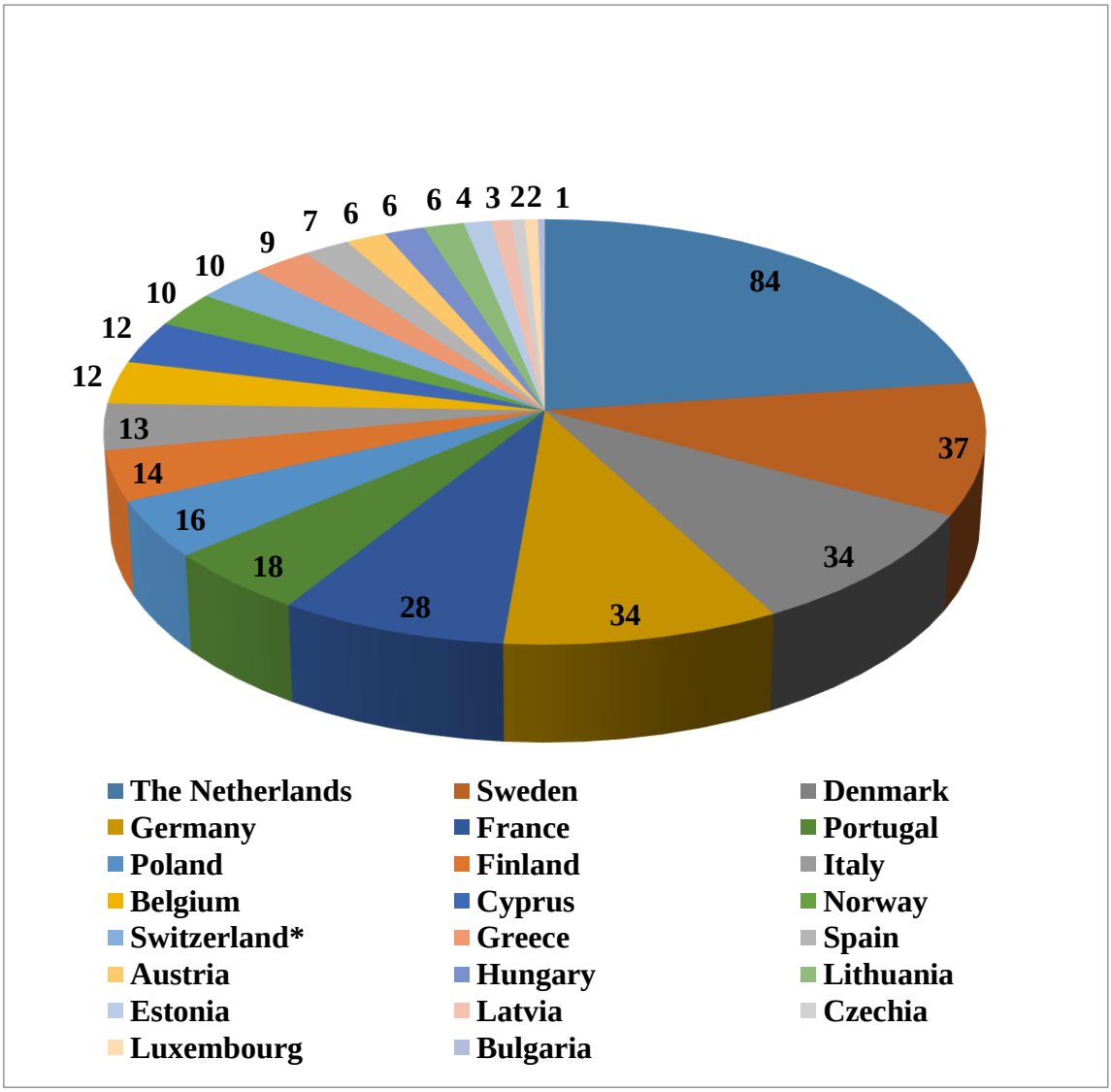


Fig. 3. Master programmes by countries.

Note: * – Master program in medicine is taught in English.

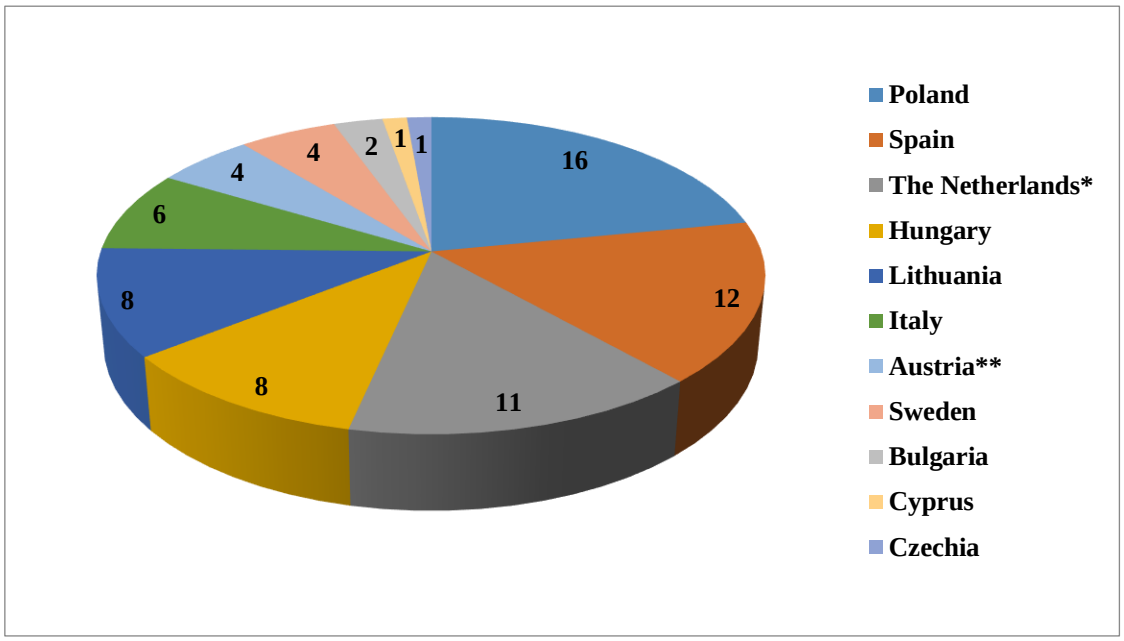


Fig. 4. Bachelor programmes by countries.

Notes: * of them, 1 Bachelor ETP in medicine is offered;
** of them, 3 Bachelor ETPs in medicine are offered.

some Nordic universities is to teach Bachelor programmes only in the national language. Similarly, the Studyportals and the British Council have noticed the low share of Bachelor in relation to Master studies among the total number of ETPs in the EHEA region [6].

One hundred and thirty-eight single-cycle ETPs (medicine, dental medicine, pharmacy) are offered in only four regions: Baltic, Central East Europe, South East Europe, and South West Europe. The leader is Central East Europe (62 programmes), followed by South East Europe (40) and South West Europe (28). Baltic countries offer nine single-cycle programmes. It is worth noting that in the Baltic region, Central East Europe, South East Europe, single-cycle programmes are offered in every country by the majority of (if not all) medical schools. The leaders among the countries are Poland (32), Italy (22), Romania (15), Hungary (12), Czech Republic (11). The distribution of the single-cycle ETPs is demonstrated in *Figure 5*.

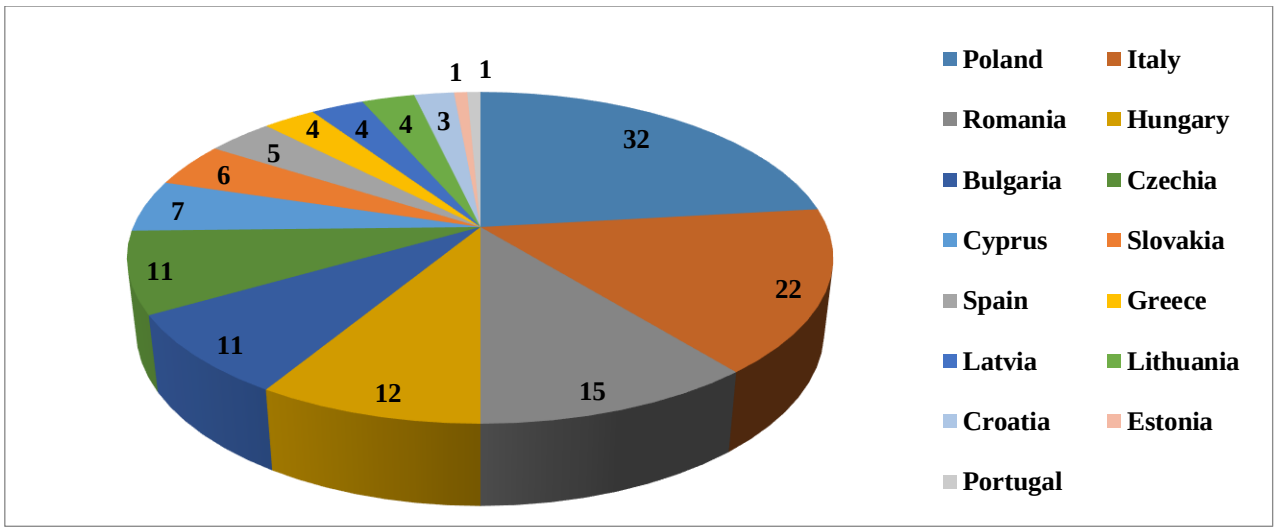


Fig. 5. Single-cycle programmes by countries.

The programmes leading to the degree in medicine can be found in Estonia, Latvia, Lithuania, Czech Republic, Hungary, Poland, Slovakia, Bulgaria, Cyprus, Greece, Croatia, Romania, Italy, Portugal, dentistry (dental medicine) – in Latvia, Lithuania, Bulgaria, Croatia, Cyprus, Czech Republic, Hungary, Italy, Poland, Romania, Slovakia, Spain, pharmacy – Estonia, Romania, Bulgaria, Cyprus, Czech Republic, Hungary, Poland, physiotherapy – Poland (interestingly that physiotherapy, usually taught in two cycles, is offered as a single-degree programme only by Polish HEIs). The leader in providing single-cycle programmes is Poland (32 programmes); Italy follows with 22 programmes, Romania (15 programmes) and Hungary (12 programmes) share the third place.

Of the countries teaching Medicine, Dentistry, and Pharmacy as two separate cycles, first-degree ETPs in medicine are offered by 3 universities in the Netherlands (Rijksuniversiteit Groningen, Maastricht University, European Medical School Oldenburg-Groningen) and one school in Austria (Karl Landsteiner Privatuniversität für Gesundheitswissenschaften). In addition, Utrecht University offers a three-year Bachelor programme in Pharmaceutical Sciences while the respective Master programmes are taught in the National languages. Given this fact, the offer of the Faculty of Biomedical Sciences of Università della Svizzera Italiana (Switzerland) looks contrasting. This school provides an EMI 6-semester Master of Medicine Programme for undergraduate students, mainly from the partner universities. The Bachelor study is provided in German but the language of tuition for the Master of Medicine is English. This observation is consistent with the language policy in the country: Durham M. (2016) claimed that English had acquired the status of a "de facto" additional language of Switzerland [15, p. 107]. More recent work argues that "in spite of the fact that English has no official status in Switzerland, English has, over the past few decades, been increasingly used as a vehicle for communication across language regions and in many professional domains within Switzerland, replacing national languages" [16].

Our observation revealed significant differences between countries within individual regions.

In the Baltic region, Lithuania offers more than half of ETPs (18 of 30). Bachelor ETPs were not found in Latvia and Estonia.

Poland (64 programmes) is leading in Central East Europe, followed by Hungary, although 26 programmes in Hungary are taught by four medical schools, while in Poland – by 16. Slovakia offers only single-cycle programmes.

In Central West Europe, Bachelor programmes were found in Austria and the Netherlands, while the rest offer only Master programmes. The Netherlands holds a leading position, and Germany is another country with a large number of ETPs.

In South East Europe, Cyprus and Romania demonstrate a large number of ETPs. Croatia offers only single-cycle programmes. Slovenia does not offer any ETP in Medicine and Health Sciences.

In South West Europe, considerable differences can be seen between the countries in the number and types of the programmes. Single-cycle programmes in medicine and dentistry are actively offered by Italian universities (both public and private), making the country one of the leaders in EU/EEA, despite the fact that the English proficiency level in the country is not high. Analysing the slow increase in EMI offer in Italy, Amanda C. Murphy and Beatrice Zuaro [17] assumed that a possible reason is the overall moderate English language proficiency in Italy. However, the number of single-cycle ETPs in the country, contrasting with other regions of Old Europe, does not support this assumption. In our view, English proficiency in the country is hardly of paramount importance for EMI implementation. It is just one (and not the most essential) aspect of socializing in the country for an English-speaking person (in the case of international students who do not know the language of the country), as well as an issue of academic and non-academic staff preparedness. Overall, the question whether the level of English is associated with English proficiency level in the country requires more accurate analysis.

In the Nordic region, all countries offer Master programmes, while Bachelor programmes are taught only in Sweden.

Overall, the situation demonstrated by our study is consistent with the literature data concerning selected countries. Medicine and Dentistry have been described as popular study areas in Poland (ranking first and sixth, respectively, among 15 according to the number of students enrolled) [18, p. 273]. It is reported that in Spain, business studies, economics, and engineering are more likely to be taught in English. In contrast, other areas of study, such as physical education, health sciences, history, or art are usually less internationally driven [19]. In Belgium, most English-taught Master-level programmes are in Applied Economics, Commercial Sciences and Business Administra-

tion, and Applied Sciences [20, p. 45]. The most popular ETPs in Austria are business administration, STEM, tourism, sports [21, p. 295].

According to the Studyportals and the British Council, EU/EEA countries are the leaders by the number of ETPs in the EHEA region: 13 of top 15 destinations by the supply of on-campus programmes [6, p. 16], but the positions of some countries in our rating are strikingly different from theirs. Thus, Poland, occupying the second position in our investigation, is the 10th in the 2024 report, Sweden – 3 in our study vs. 8 in the report, and Hungary – 8 vs. 15, in contrast to Germany (6th position in our study vs. 2 in the report). Denmark and Cyprus are 5th and 10th, respectively, in our study, but dropped out from the top 15 in the 2024 report. The 5 leaders among the providers of single-cycle ETPs (Poland, Italy, Czech, Hungary, except for Romania), appear in this list of top 15, where their positions are 10, 6, 13, and 15, respectively [6, p.16]. This inconsistency of our data with the general rating of destinations can be explained by the fact that the EU/EEA countries give different emphasis to ETPs in Medicine and Health Sciences in pursuing university internationalization. Besides, medicine and dentistry have higher than other professions requirements for language proficiency, which can also restrain the adoption of ETPs.

The term English-medium instruction is used to designate a wide range of English usage to teach content subjects. The detailed taxonomy of EMI forms proposed by Richards J.C. and Pun J. distinguishes ten models; one of them, the *EMI curriculum model*, is based on the mode of English use in the educational process and includes *single medium EMI* (all content subjects are taught in English), *dual medium/partial* (some subjects taught in English and others in another language), *parallel* (some subjects taught both in English and another language), *transitional* (some subjects are initially taught in another language and later taught in English), *collaborative* (the content teacher and the English teacher collaborate in teaching content classes), *interdisciplinary* (teachers of different disciplines share the teaching), *sheltered* (content teacher teaches a content course specially designed for L2 students), *adjunct* (a content and language course are linked with the same content base and co-ordinated assignments), *bridging* (a preparatory or bridging course prepares students to EMI) [9, p. 7].

In addition to entirely English-taught programmes (single medium EMI), we found medical schools offering bilingual and trilingual (national + English) programmes. For instance, Paracelsus Medizinische Privatuniversität (Austria) offers selected courses taught in English as well as clinical rotations, internships, and a four-month research trimester abroad at partner universities. To be enrolled in a Bachelor programme "a sufficient level of English" is required. Therefore, the entrance test includes questions (multiple choice and filling gaps) to evaluate English comprehension at the B2+ level. In addition, to complete the Bachelor program and earn the Bachelor of Science in Medicine, students must pass an external exam: the USMLE Step 1. Admission to the Master program (also German-taught) in Human Medicine requires successful completion of the USMLE Step 1.

Programmes taught in three or two languages are available at the University of Luxembourg. Though the main languages of instruction are German and French, English is used to teach some courses. The study programme *Bachelor in Medicine* includes courses taught in German and English (Biochemistry-Pathobiochemistry), French and English (Physics 1, Introduction to Public Health, Quantitative Biomedicine, Microbiology 1, Sensory system), French, German and English (Cross-disciplinary cardio-respiratory teaching). The recommended literature includes English-language textbooks. English at the B2 level confirmed by passing exams (TOEFL, IELTS, Cambridge) is required to be enrolled, and exemptions are made for the students who have completed secondary education in Luxembourg. The Bachelor programmes taught in three languages (one of them is English) are Psychiatric Nurse, Medical Technical Assistant in Surgery, Nurse in Anaesthesia and Reanimation, Paediatric Nurse, Nurse in General Care, and Midwifery; Life Sciences–Biomedicine is taught in French and English.

More examples of bilingual programmes can be found in Spain. English-taught courses are available at the Faculty of Medicine, the University of Cantabria; the Faculty of Medicine, the University of Barcelona; the Faculty of Medicine, the University of Vic. The example of the University of Vic is rather illustrative. All programmes in Medicine and Health offered by this university contain English-taught courses. The programme in Dentistry includes the following courses taught in English: *Communication and Psychology* (10 ECTS, basic training), *Technology and Digital Tools* (10 ECTS, compulsory), all optionals each 5 ECTS: *Academic Papers, Advanced Biostatistics, Advanced Community Dentistry, Aesthetic*

Dentistry, Global Health, Human Nutrition and Healthy Living, Leadership and Professionalism, Current Health System, Update on Dental Materials. Optional courses of the programme in medicine are English-taught: *Biomedical Research, Clinical Sexology, Health Management, Integrated Palliative Care, Leadership and Professionalism, Multidisciplinary Teams for Patient Safety and Quality, Occupational Health, Physical Activity, Sport and Health, Current Healthcare System, Mindfulness and Health, ICT in Health, Global Health, Climate Change and Health, Art and Medicine*; the programme in nursing includes 6 ECTS in English: compulsory *Scientific Method in Nursing Sciences* and optional *Nutrition and Cooperation in Nutrition Crisis Situations*; the programme in occupational therapy – 6 ECTS: *E-Health* and *Artistic Activity as Therapy* (both optional); physiotherapy – 6 ECTS: *e-Health*, *Nutrition and Physiotherapy* (both optional); biomedicine – 72 ECTS: *Integrated Project I – VI* (compulsory), *Molecular Genetics* (basic training), *Omics Technologies* (compulsory), *Clinical Genomics* compulsory, *Cancer Biology* (compulsory), *Bioscience and Business* (optional), *Emerging and Re-emerging Infections (*optional), *Systems Medicine* (optional). Our attention was attracted by the course *Integrated Project,* which ends each semester from the first to the third year and is aimed at consolidating at a practical level of the knowledge that students have acquired during the semester. As the course is taught in English, the students gain the skills of scientific communication in English, both in oral and written form.

According to Gustafsson M. & Valcke J. [22, p. 224], at Karolinska Institutet, the largest medical school in Sweden, "all undergraduate and postgraduate degrees must have at least 7.5 credits taught through English". We could not find the details of the English-taught courses on the website, but to enter medicine or dentistry, English proficiency equivalent to 6.5 in IELTS or 90 in TOEFL (B2) is required.

Programmes run in Polish, with selected courses carried out in English as the language of instruction were mentioned by Cierpich A. & Sieradzka-Baziur B. (2020) [23], but we could not identify them among programmes in medicine and health sciences. Perhaps more information could be obtained by surveying the universities' officials dealing with English-taught programmes.

We believe that the potential of partial EMI is underrated, especially when the course is planned for L1 students. It can motivate them to improve their English language skills, allows them to get the latest professional information, and will prepare them to participate in academic mobility. It can be adopted as parallel EMI when the same course is offered both in L1 and English. It is worth noting that partial EMI has long been successfully practiced by Ukrainian secondary schools with in-depth study of foreign languages.

Describing the steady growth of English-medium instruction of Medicine and Health Sciences in Europe it would be unfair not to mention that EMI implementation has not been uneventful. It is reported that in France, "teaching, exams, dissertations, and theses must be in French, in public and private schools and universities alike" [24, p. 36] with the exception of teaching foreign languages, special education (i.e., international schools) and visiting professors. In Flanders (the region of Belgium), the law states that languages other than Dutch may be used on condition that they provide an "added value" and that there is an equivalent programme in Dutch [19, p. 43]. Legal proceedings concerning EMI implementation in Italy [25] and the Netherlands [26] are also well-known. Anti-EMI movement often takes place under the flag of organizations concerned with national language and cultural heritage.

Together with the expansion of ETPs in Europe, the recent report on ETPs [6] shows significant cuts in Spain, Sweden, Denmark, and Finland. The measures to limit the number of the programmes taught in English only (such as modifying programmes to be taught entirely in Dutch, adding a Dutch-language option, and employing a quota for English admissions) were announced in the Netherlands. The measures are planned to be introduced in the 2025–2026 academic year [27]. The share of the programmes in Medicine and Health Sciences is not known, but given that these programmes are language-sensitive, this trend may affect them.

Conclusion

Our findings suggest that teaching Medicine and Health Sciences in English is a common practice in European countries. However, the types of EMI (single medium or bilingual) as well as the level of education (undergraduate or graduate) are implemented selectively, which might be related to several reasons, such as the language policy in the country, target groups of students and their incentives, peculiarities of the HEI internationalization policy. Among single medium ETPs, Master programmes are more common; with some exemp-

tions, they can be found in every country that has implemented EMI in Medicine and Health Sciences and is the only type of ETP in many countries. Programmes leading to the degree in medicine, dentistry, and pharmacy are offered by the medical schools in the Baltic region, Central East Europe, South East Europe, and South West Europe. Implementing ETPs is not directly associated with the level of language proficiency in the country; however, this issue requires a more accurate investigation within the group of countries.

Because of the role EMI plays in higher education internationalization, students' mobility, university competitiveness, and rating, investigation of the global experience of EMI implementation should be taken into account when developing ETPs in a particular university.

The use of the information from the university site is a limitation of the study, as it chiefly reflects the declared policy of the HEI. More information about the actual state of affairs, achievements, and challenges can be obtained using surveys and interviews.

DECLARATIONS:

Disclosure Statement

The authors have no potential conflicts of interest to disclosure, including specific financial interests, relationships, and/or affiliations relevant to the subject matter or materials included.

Statement of Ethics

The authors have no ethical conflicts to disclosure.

Data Transparency

The data can be requested from the authors.

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Consent for publication

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