



## **Audit Conclusion**

**19/06**

### **Funds Provided for Education of Health Care Professionals**

The audit was included in the audit plan of the Supreme Audit Office (hereinafter the “SAO”) for 2019 under number 19/06. The audit was managed and the Audit Conclusion was drawn up by SAO member Ing. Adolf Beznoska.

The aim of the audit was to verify the provision and use of state funds for the education of health care professionals in terms of economy and effectiveness and compliance with legal regulations.

The period under review was 2015-2018; both the previous and subsequent periods were also considered for contextual reasons. The audit was conducted with the audited entities between April 2019 and November 2019.

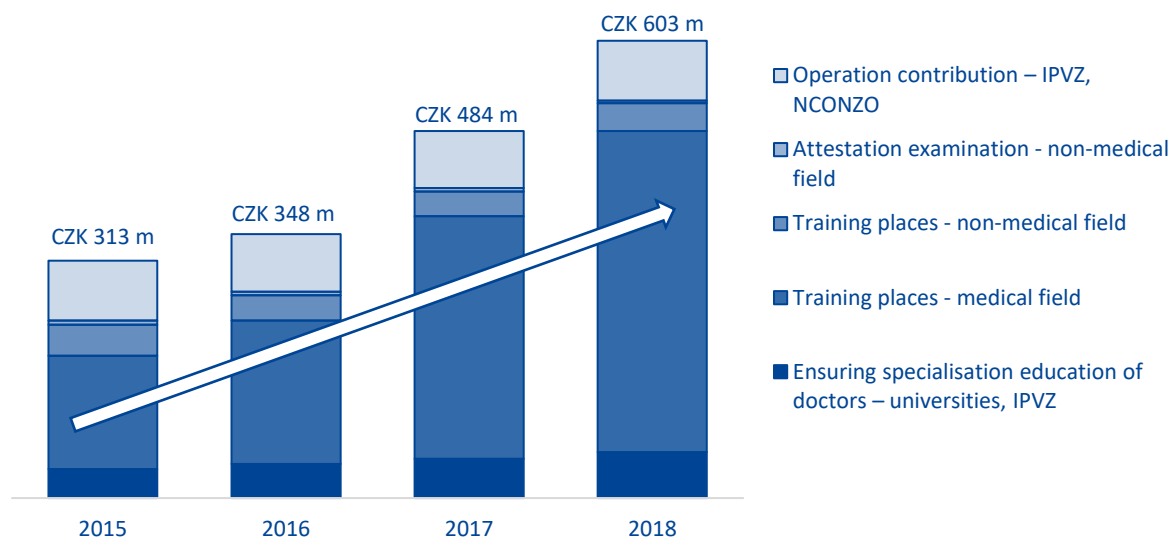
#### **Audited entities:**

Ministry of Health (hereinafter the “MoH”); Ministry of Education, Youth and Sports (hereinafter the “MoEYS”); Institute for Postgraduate Medical Education, Prague (hereinafter the “IPVZ”); National Centre of Nursing and Non-Medical Health Care Fields, Brno (hereinafter the “NCONZO”); Jihlava Hospital, contributory organisation (hereinafter the “Jihlava Hospital”); Thomayer Hospital, contributory organisation, Prague (hereinafter the “Thomayer Hospital”); Charles University, Prague.

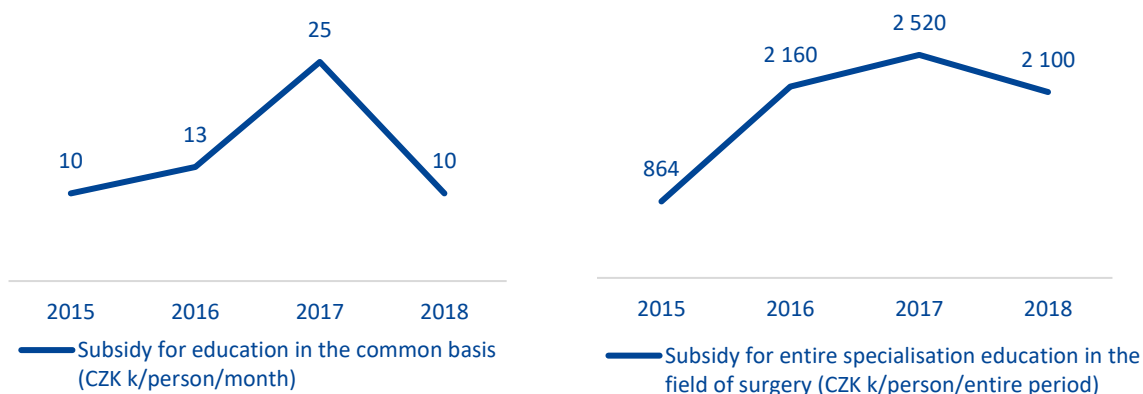
The **Board of the SAO** at its 3rd session held on 24 February 2020 **approved**, by Resolution No 8/III/2020, the **Audit Conclusion** as follows:

## EDUCATION OF HEALTH CARE PROFESSIONALS

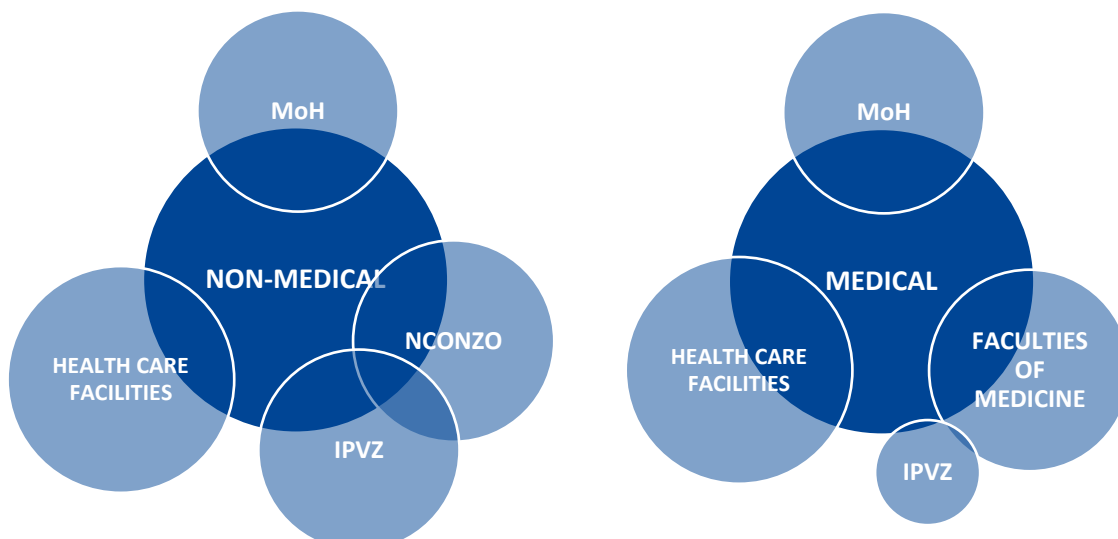
MoH EXPENDITURES ON FURTHER EDUCATION OF HEALTH CARE PROFESSIONALS WERE RISING



EACH YEAR THE MoH UNSYSTEMATICALLY CHANGED THE AMOUNT OF SUBSIDIES FOR TRAINING PLACES FOR DOCTORS



SYSTEM OF SPECIALISATION EDUCATION REMAINS COMPLICATED



## I. Summary and Evaluation

The aim of the audit was to verify the provision and use of state funds for the education of health care professionals in terms of economy and effectiveness and compliance with legal regulations. The audit focused mainly on expenditures from the state budget chapter 335 – *Ministry of Health* for further education of health care professionals<sup>1</sup>. These expenditures are used for the co-financing of postgraduate – i.e. specialisation and life-long – education of doctors and non-medical health care professionals.

**The MoH, which covers the entire system of specialisation education of health care professionals, did not evaluate its functioning although it spends hundreds of millions of Czech crowns on it every year. The funds provided were used to support further education of health care professionals. When determining the amounts of subsidies provided for the co-financing of training places for doctors and non-medical health care professionals, the MoH did not assess the economy of the funds allocated in this way. In the granting process itself, errors were found due to, among other things, the lack of a clear definition of the competences of the designated administrator, and the decision-making on the allocation of subsidies was not transparent. Every year, the MoH paid subsidies to universities for specialisation education of doctors amounting to tens of millions of Czech crowns without any analysis of the real economic demands of the provided services, and did not even consistently check the use of these funds. Moreover, the transformation of the specialisation education system, which began with the involvement of universities, has not been completed. As part of its audit, the SAO also found violations of legal regulations, namely at the MoH, the beneficiaries of subsidies for the co-financing of training places and also IPVZ and NCONZO.**

### **1. The MoH did not evaluate the system of specialisation education for health care professionals.**

The MoH, as the central state administration body responsible for health care, which includes, among other things, further education of health care professionals, did not carry out an evaluation of the setting and functioning of the system of specialisation education of health care professionals in the period under review, i.e. the years 2015-2018. It did not examine its efficiency and economy, the results achieved after the involvement of universities etc., although it spent hundreds of millions of Czech crowns annually on its support.

### **2. The set system of administration of subsidies with insufficiently defined competences enabled mistakes. The decision-making to grant subsidies was not transparent**

In the methodologies of the subsidy procedure for co-financing of specialisation education, the **MoH** set the conditions and procedure for applicants for subsidies and appointed an administrator (IPVZ). However, **no document clearly defined the duties and responsibilities of the administrator for the activities performed**, in particular for checking the factual correctness of the documents submitted by the subsidy beneficiaries. In addition, **shortcomings were found** in the administration and decision-making of the MoH on the

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<sup>1</sup> Expenditure included under Section 3592 of Part C. *Sectoral breakdown of the budget structure* of the Annex to Decree No 323/2002 Coll., on the budget structure.

provision of subsidies, **which had an impact on the transparency of the whole process and equal approach** to all applicants, i.e. subsidy beneficiaries.

The MoH set the amount of subsidy per one training place in the particular field of specialisation education of medical and non-medical professionals without a prior analysis of its real economic demands, and thus did not assess the cost-effectiveness of its chapter.

### **3. Health care facilities made mistakes when using subsidies for specialisation education**

The audited aid beneficiaries committed a number of mistakes in the practical part of the specialisation education. For both medical and non-medical programmes, the identified violations of binding methodologies for granting subsidies consisted, for example, in:

- Missing mandatory parts of subsidy applications;
- Errors in the preparation of financial plans;
- Failure to notify changes or failure to comply with the deadlines set for their notification;
- Incorrectly prepared inspection reports.

The beneficiaries also failed to comply with the legislation<sup>2</sup> in the area of selection procedures for trainees and, **in several cases, they used a subsidy to cover costs in contravention of the subsidy decision**. One of the beneficiaries was thus training doctors for more than 3 months in a field for which they had no valid accreditation.

Based on the ascertained facts, the SAO filed a notification with the tax authority of a breach of budgetary discipline<sup>3</sup> totalling CZK 593,877.

### **4. The system of specialisation education of doctors is fragmented**

A number of entities operate within the system of specialisation education of doctors. The transformation of the system of specialisation education of doctors, which began with the involvement of universities in 2011, has not been completed in the opinion of the SAO. After transferring most of the theoretical training to universities, IPVZ has lost its key position and the MoH should consider its future role in the system.

In 2017, a significant amendment to Act No 95/2004 Coll.<sup>4</sup> was adopted, as a result of which it was necessary, among other things, to rework programmes of specialisation education for individual fields or to set up the form of examination after the completion of doctors' education in the common basis. However, related implementing regulations were not prepared. The decree<sup>5</sup> governing the examination in the common basis was issued after more

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<sup>2</sup> Act No 96/2004 Coll., on conditions of acquisition and recognition of qualification for the pursuit of non-medical health professions and activities related to the provision of health care and on amendments to some related acts (Act on Non-Medical Health Professions), Decree No 186/2009 Coll., laying down the procedure for the announcement of the selection procedure for a residential place, the course of the selection procedure for a residential place and the basic criteria for the selection of a resident (on residential places).

<sup>3</sup> Section 44(1)b) of Act No 218/2000 Coll., on Budgetary Rules and on Amendments to Certain Related Acts (Budgetary Rules).

<sup>4</sup> Act No 95/2004 Coll., on conditions for the acquisition and recognition of professional competence and specialist competence to practice as a doctor, dental practitioner or pharmacist.

<sup>5</sup> Decree No 282/2019 Coll., on examinations of doctors, dentists and pharmacists and on amendment to Decree No 188/2009 Coll., on attestation examination, final examination of a certified course and on the

than two years. New training programmes were not prepared, either, which resulted in a delay in the granting of accreditation for education to individual institutions.

**5. When setting the amount of subsidies to universities, the MoH did not assess the cost-effectiveness in its chapter. The MoH did not properly check its expenditures**

**The MoH did not prepare any analyses or calculations which could be used in setting the amount of reimbursement for activities delegated to the faculties of medicine** of universities within the framework of specialisation education of doctors. It did not happen in 2011, when the first contracts were concluded, or in 2017, when the reimbursement for activities was significantly increased. The MoH did not assess the cost-effectiveness of expenditures incurred in its chapter, as it did not establish objective criteria to assess the appropriateness of the amount of these subsidies. As a result of the method of setting the reimbursement, one of the universities annually received, calculated per registered trainee, eight times the amount received by other universities from the subsidy for the faculties of medicine.

**The MoH did not thoroughly check the billing of subsidies provided to universities.**<sup>6</sup> The submitted documents clearly showed errors that were not contradicted by the MoH. Moreover, the billing in the form in which it is processed by universities does not allow the MoH to check the correctness of the actual use of the subsidies.

**6. Contributory organisations of the MoH active in the field of postgraduate education in health care violated laws and their internal control systems did not work. IPVZ operates a hotel whose accommodation capacity is used by course participants only minimally**

The audited organisations did not publish some prescribed documents in the register of contracts. At the NCONZO, the audit also revealed shortcomings in accounting<sup>7</sup> and breaches of budgetary rules<sup>8</sup>. The internal control system was ineffective in the organisations.

IPVZ operates a hotel in Prague but postgraduate students currently use only 10 % of its occupied accommodation capacity. Therefore, the hotel no longer serves the original purpose of accommodating trainees.

**7. In recent years, the MoH has been responding to calls to ensure the personnel stability of the Czech health care system and cooperates with the MoEYS**

In recent years, partial steps have been taken to address the personnel capacity of the Czech health care system. Especially the so-called long-term financial measure to increase the capacities of the faculties of medicine in the Czech Republic<sup>9</sup> prepared in cooperation with the MoEYS, which aims to financially secure a sustainable increase in the number of their students and graduates, can be considered the most crucial.

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procedure of verifying knowledge of the Czech language by interviewing doctors, dentists and pharmacists (on examinations of doctors, dentists and pharmacists), as amended by Decree No 118/2018 Coll.

<sup>6</sup> Act No 320/2001 Coll., on Financial Control in Public Administration and on Amendment to Certain Acts (Act on Financial Control).

<sup>7</sup> Act No 563/1991 Coll., on Accounting.

<sup>8</sup> Act No 218/2000 Coll.

<sup>9</sup> The document was approved by Government Resolution No 563 of 4 September 2018, *on a long-term financial measure to increase the capacities of the faculties of medicine*.

The MoH also increases the volume of subsidies to support the practical part of specialisation education in health care. Since 2015, the sum of funds spent on the specialisation education of doctors has almost tripled to CZK 423 million paid in 2018. However, the correct targeting of subsidies remains a major challenge and it is necessary to ensure that the subsidies have a real impact on maintaining or increasing the capacity of health care professionals in the sectors and locations most at risk of lack of skilled medical as well as non-medical professionals.

## II. Information on the Audited Area

**The Ministry of Health** is, pursuant to Section 10(1) of Act No 2/1969 Coll.<sup>10</sup>, the central state administration body for health services, public health protection, medical research activities, health service providers under direct management, handling of addictive substances, preparations, precursors and auxiliary substances, search, protection and use of natural healing resources, natural health spas and sources of natural mineral waters, medicines and medical devices for the prevention, diagnosis and treatment of people, health insurance and the health information system, for the use of biocidal products, and the marketing of biocidal products and active substances. From the state budget chapter 335 – *Ministry of Health*, through the expenditure included under the budget structure section 3592 – *Further education of health care professionals*, mainly postgraduate (i.e. specialisation and life-long) education of doctors and non-medical health care professionals is funded.

**The basic conditions for acquiring the competence to practise the medical profession of a doctor, dentist and pharmacist** in the Czech Republic are regulated by Act No 95/2004 Coll. The education leading to the acquisition of a specialised qualification for the medical profession of a doctor, which is supported by the MoH through expenditure on further education of health care professionals, is carried out in the course of practising the medical profession by completing individual parts of the education programmes set for the specialisation fields. The education consists of the common basis followed by the student's own specialised training. Under the current legislation, education in the common basis is completed by an exam, after which the doctor will be issued with a certificate of completion of the primary field. Upon completion of specialised training, the doctor will pass an attestation examination, on the basis of which the doctor will receive a diploma of specialisation in the relevant field from the MoH.

**The conditions for acquiring the competence to pursue a non-medical health profession** and to perform activities related to the provision of health care in the Czech Republic are regulated by Act No 96/2004 Coll. The education programme of specialisation education in non-medical fields, supported by the expenditure of the MoH for further education of health care professionals, consists of modules. Specialisation education includes, the same as with doctors, the acquisition of theoretical and practical skills and their subsequent verification. Upon a successful completion of the attestation examination, the MoH will issue a diploma of specialisation in the relevant field to the participant.

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<sup>10</sup> Act No 2/1969 Coll., on the establishment of ministries and other central state administration bodies of the Czech Republic.

A number of entities are involved in the **postgraduate education system**. These include, in particular, the MoH as the central state administration body of the Czech Republic for health care, its contributory organisations IPVZ and NCONZO, the faculties of medicine (hereinafter the “FoM”) of Czech universities and health service providers.

The SAO audit focused on auditing the funds issued by the MoH for further education of health care professionals in the years 2015-2018. The MoH provides funding mainly through programmes supporting the establishment of residential places<sup>11</sup>, i.e. training places, to ensure education by universities and to cover the examinations to verify the achieved level of knowledge. The MoH also provides a contribution to the operation of IPVZ and NCONZO, which perform a number of tasks for the Ministry, inter alia those related to further education. In particular, they implement selected parts of education programmes. In this area, IPVZ provides the administration of subsidy programmes for the MoH to support training places. The expenditure of the MoH on further education of health care professionals categorized according to its use is shown in the following table.

**Table 1: The expenditure of the MoH on further education of health care professionals**  
(CZK thousand)

Item	2015	2016	2017	2018	Total
Operation contribution (IPVZ, NCONZO)	79,000	75,839	75,500	78,764	<b>309,103</b>
Attestation examination non-medical field	5,431	4,834	4,290	3,618	<b>18,173</b>
Training places – non-medical field	40,957	33,071	32,686	36,439	<b>143,153</b>
Training places – medical field	149,125	189,143	320,028	423,303	<b>1,081,599</b>
Ensuring specialisation education of doctors (universities, IPVZ)	38,372	44,917	51,516	60,595	<b>195,400</b>
Medical student of the year	0	0	0	100	<b>100</b>
<b>Total</b>	<b>312,885</b>	<b>347,804</b>	<b>484,020</b>	<b>602,819</b>	<b>1,747,528</b>

Source: closing accounts of chapter 335 – *Ministry of Health* for the years 2015–2018.

The MoH annually announces subsidy programmes for training places, for which it spent more than 70% of the funds for further education in the period under review. One programme was always announced for the entire specialisation education of selected non-medical fields. For medical fields, for 2015-2018, a programme was always prepared for training places to support the training of doctors in the common basis, i.e. only the first part of specialisation education in all fields and without limiting the number of places, and programmes to support the entire specialisation education in selected fields. In addition to the standard scheme of announced programmes of subsidies for training places, the MoH announced in each of the years 2017 and 2018 two extraordinary subsidy aid programmes to support the entire specialisation education of doctors in selected fields.

<sup>11</sup> Pursuant to Section 2o) of Act No 95/2004 Coll., the residential place is a training place in an accredited facility, which is co-financed from the state budget. Residential places for non-medical disciplines are defined in Section 2n) of Act No 96/2004 Coll. The trainee is in an employment relationship with the facility with a residential place.

For the sake of simplicity and greater readability to a wide range of readers, the general term “training place” is used in this Audit Conclusion, which includes both residential places as defined by Acts No 95/2004 Coll. and No 96/2004 Coll. and co-financed through regular annual programmes, as well as training places co-financed by extraordinary programmes launched in 2017 and 2018 for medical disciplines.

In 2011, there was a change in the system of specialisation education of doctors. The theoretical part of specialisation education of doctors and dentists in basic fields was transferred from IPVZ to universities and their faculties of medicine. The basic branches of general practical medicine and practical medicine for children and adolescents, which have so far remained under IPVZ, are an exception.

At present, four universities and their eight FoM and IPVZ are entrusted with providing the theoretical part of the specialisation education of doctors. Most of the funding earmarked for this area, more than 95% annually, goes to universities. These have public contracts with the MoH specifying the activities performed by the universities, including the amount of reimbursement for the performance of these activities. The basic activities carried out by the universities on the basis of the contracts are coordination activities, activities related to the inclusion in the fields of specialisation education and records, transfer of certificates, decision-making on practical experience, examinations in the common basis, assessment of fulfilment of conditions for the attestation examination, conducting attestation examinations, and statistical and analytical activities. The universities are reimbursed for the activities in the form of subsidies (i.e. on the basis of subsidy decisions) for each calendar year. The payments consist of three or four parts as shown in the following table.

**Table 2: Rates of lump-sum subsidies according to concluded contracts (CZK)**

	Rates valid by 31 August 2017	Rates valid from 1 September 2017
Subsidy per calendar year and involved Faculty of Medicine	2,300,000	3,450,000
Subsidy per trainee in a field of specialisation education per calendar year	3,000	3,000
Subsidy for attestation examination	3,000	4,000
Subsidy for examination after common basis	–	4,000

**Source:** public law contracts concluded between the MoH and universities.

Attestation examinations for non-medical fields are carried out by organisations directly managed by the MoH – IPVZ and NCONZO, as well as some accredited facilities that have been authorised to provide specialisation education in the relevant field and that have been entrusted with conducting the attestation examinations in the relevant field. For the performance of these examinations, they are entitled to reimbursement provided in the form of a subsidy or as a contribution directly to the organisation’s budget.

To ensure a sufficient number of health care professionals, a sufficient number of graduates of the faculties of medicine as well as of secondary, tertiary vocational and higher education institutions with non-medical health care specialisations is essential. This area falls within the competence of the MoEYS, which is why cooperation of both ministries is necessary.

**III. Scope of Audit**

Within the defined scope of the audit, individual areas related to further education of health care professionals were examined.

- Subsidies to health care facilities intended for the co-financing of specialisation education of doctors and non-medical health care professionals on training places were audited. The set-up of programmes, administration of the subsidy procedure and distribution of funds



to individual applicants for which the MoH is responsible was examined. The SAO also audited two selected hospitals, beneficiaries of these funds, focusing on their use.

- The set-up and functioning of the system of securing the theoretical part of the specialisation education by universities was examined, both at the MoH and at the selected university and its FoM.
- In-service training facilities, i.e. IPVZ and NCONZO, which are involved in the postgraduate education of health care professionals, were also audited. In particular, the SAO checked for these facilities whether they were operated accordingly and whether they used the state assets and funds for the purpose for which they had been established.
- Cooperation between the MoH and the MoEYS was also verified in terms of ensuring an adequate number of graduates of the undergraduate level of education in order to provide the necessary number of health care professionals.

The audit criteria were based on legal regulations, especially Acts No 95/2004 Coll. and 96/2004 Coll., Act No 218/2000 Coll., Act No 320/2001 Coll. and related implementing regulations, and also on the methodologies for subsidy procedures and subsidy programmes. The SAO also assessed the transparency of spending funds from the state budget, their effectiveness and ensuring economy.

At the system level, the funds in the amount of CZK 1.7 billion spent on further education of health care professionals were audited.

**Note:** The legal regulations contained in this Audit Conclusion are applied in the version effective for the period under review.

#### **IV. Detailed Facts Ascertained by the Audit**

##### **1. The MoH did not evaluate the system of specialisation education for health care professionals.**

The SAO audited whether the MoH, as the central state administration body responsible for health care, which also includes further education of health care professionals, had carried out analyses or evaluations of the system of specialisation education of doctors and non-medical health care professionals. Whether the MoH had evaluated its efficiency, economy and cost ratio development, and whether it had analysed the results achieved in connection with the changes since 2011, i.e. the involvement of universities and their faculties of medicine in specialisation education. The audit found that, even though the MoH had spent hundreds of millions of Czech crowns annually on the support for further education and that amount almost doubled from CZK 313 million in 2015 to CZK 603 million in 2018, the MoH had not carried out any evaluation in the period under review.

##### **2. The set system of administration of subsidies with insufficiently defined competences enabled mistakes. The decision-making to grant subsidies was not transparent**

The MoH involved the so-called administrator in the process of administering subsidies for training places in medical and non-medical fields. IPVZ was appointed the administrator. The relevant methodologies of subsidy programmes set out which documents, including the entire

application, were to be submitted by the applicants or beneficiaries of subsidies to the administrator or to the MoH through the administrator. The role of the IPVZ as the administrator was also listed as part of its primary activities in its statutes. **However, no document specified the procedure of the administrator's activities within the subsidy procedure, including the definition of its responsibilities, in particular for checking and processing individual documents from the applicants for subsidies or subsidy beneficiaries, which may be the cause of errors in this procedure.**

In order to assess the fulfilment of the formal requirements for subsidy applications for the entire specialisation education, the MoH appointed a committee for the acceptance of applications according to the programme methodologies, which was to prepare an assessment report. Its members were representatives of the MoH and the IPVZ. The assessment of the fulfilment of the formal requirements was followed by a factual assessment of the applications according to predetermined criteria<sup>12</sup> and the allocation of training places or subsidies. Factual assessment of the applications was carried out by accreditation committees and also the MoH, which decided on the allocation of subsidies, in accordance with the applicable legislation. This did not apply to subsidies under the education programme in the common basis for doctors, where the subsidy was received in full by applicants who met pre-established requirements.

The following shortcomings were found during the examination of administration and decisions on the allocation of subsidies by the MoH:

- Incomplete applications or applications with missing annexes and other formal shortcomings were accepted for factual assessment without any objection.
- In 79 cases out of 85, the so-called optional criterion of the accreditation committee was not specified in the documentation for the factual assessment of applications.
- In non-medical fields, discrepancies were found between the maximum score that applications could receive and their actual score, i.e. they scored more points than was possible according to the published methodologies.
- In non-medical fields, it was found in several cases that the MoH had changed the score of applications in the overviews that had been the result of the assessment by the accreditation committee.
- In the final allocation of training places in fields where all the requirements of applicants for subsidies could not be met, no rules were laid down for their reduction, and no such rules followed from the performed allocation of the training places. For example, in one of the non-medical fields in 2018, an applicant for four training places who received 100 points in the evaluation, i.e. the maximum, was awarded two places. Another applicant in the same evaluation scored only 80 points but was awarded a subsidy for three of the four required places.

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<sup>12</sup> The evaluation criteria always included a regional criterion, i.e. the need for experts in the field in the relevant region, the quality of the entire training programme, the optional criterion of the accreditation committee, and the criteria of experience of the trainer, the length of his/her practice and penalties for failure to adhere to rules in the previous year.

The MoH also accepted violations of the subsidy procedure methodologies in the following cases:

- The beneficiaries did not report any changes which they were obliged to report or did not observe the deadlines for these reports in the course of drawing subsidies, even for such fundamental changes as interruption or termination of education by a trainee.
- In twelve cases, the inspection reports submitted after the completion of the project were not prepared by an independent external inspection body although the MoH had stipulated this in the relevant methodologies.

**The above-mentioned shortcomings in the provision of subsidies caused a lack of transparency in the process and unequal approach to subsidy applicants and beneficiaries.**

The amount of expenditure on specialisation education is related to its duration, which depends on the specific field. Only the training of doctors in the common basis had the same duration and the same subsidy amount for all fields. Therefore, the differences were only visible in subsidies for the entire specialisation education, both in medical and non-medical fields. Moreover, the MoH set different subsidy amounts for medical field programmes each year (see Annex 1). For instance, for the education of doctors in the common basis, a subsidy of CZK 10 thousand per month and trainee was announced in the programme for 2015, CZK 13 thousand for 2016, CZK 25 thousand for 2017 and, again, only CZK 10 thousand for 2018.

The MoH had not prepared analyses of financial demands of specialisation education or other calculations for determining the specific amount of subsidies for the announced training places based on wage costs per trainee, the rates of planned participation of the state budget to cover them etc. in medical field programmes or fields for non-medical health care professionals. **When setting individual rates of subsidies for training places in the respective fields of specialisation education, the MoH did not assess the economy of the funds spent.**

In 2017 and 2018, the MoH announced four extraordinary subsidy procedures in support of specialisation education of doctors with a total allocation of CZK 650 million<sup>13</sup>. Although the state budget funds were also used to co-finance specialisation education for doctors through extraordinary programmes, the announcement of these programmes was unsystematic and their implementation did not take into account the conditions stipulated by legal regulations for co-financing specialisation education in medical fields<sup>14</sup>.

### **3. Health care facilities made mistakes when using subsidies for specialisation education**

An irreplaceable role in the system of postgraduate education of both medical and non-medical health care professionals is played by health care facilities, in which the practical part of training takes place. Health care facilities have the possibility of drawing subsidies for their training places within the programmes announced by the MoH. These subsidies serve in particular to cover part of the wage costs of the trainees and, to a significantly lesser extent,

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<sup>13</sup> The amount expresses the number of announced training places in extraordinary programmes multiplied by the respective subsidy rate.

<sup>14</sup> Section 21ab of Act No 95/2004 Coll.

also to cover part of the wage costs of the trainers or material costs. The SAO audited the drawing and use of subsidies for training places at two health care facilities in the total amount of CZK 20,886,738.

**Both the audited aid beneficiaries in postgraduate health care education committed errors.**

The shortcomings identified in the audit concerned both medical and non-medical programmes. Based on the ascertained facts, the SAO filed a notification with the competent tax authority of a breach of budgetary discipline<sup>15</sup> totalling CZK 593,877.

**Failure to comply with legislation on selection procedures for subsidised training places**

Health care facilities are obliged to proceed in accordance with the relevant legal regulations when selecting staff who will be trained there in the framework of postgraduate education on training places aided by a subsidy. The Jihlava Hospital did not proceed in accordance with Section 5(1) of Decree No 186/2009 Coll., as it did not ensure the correct composition of the committee for the assessment and evaluation of candidates in the period under review. Both subsidy beneficiaries also failed to meet the deadline stipulated by Section 60b(1) of Act No 96/2004 Coll. for the selection of participants in specialisation education, with a delay of up to 21 days. **Errors in the preparation of financial plans**

In the case of inclusion of the part of education from the period preceding the subsidy drawing, the beneficiaries were obliged to take this fact into account when preparing the so-called financial plan and reduce the subsidy entitlement proportionately. For thirteen trainees, the beneficiaries received subsidies in an unreduced amount even though these trainees had completed part of their training before the subsidy was granted, which was in contradiction with the relevant MoH methodology.

**Appointment of a supervisor who was not an employee of the accredited facility**

In the case of seven subsidies, both the audited health care facilities assigned a trainer who was not an employee of the accredited facility for the given field to eleven participants in specialisation education of non-medical professionals, which was in conflict with Section 59(2) of Act No 96/2004 Coll.

**Failure to notify changes or failure to comply with the deadlines set for their notification during the subsidy drawing**

Health care facilities in which specialisation education is provided are obliged to report any changes to the MoH within the statutory deadlines. In its methodologies, the MoH also set deadlines for reporting changes within the subsidy drawing. Both the health care facilities did not report many changes at all or did so with considerable, even six-month, delays.

**Incorrectly prepared inspection reports**

Upon the completion of the specialisation education aided by the subsidy, the beneficiary was supposed to draw up and submit an inspection report. In twelve audited cases, the inspection report was not prepared by an independent inspection body, which was in contradiction with the relevant MoH methodology.

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<sup>15</sup> Section 44(1)b) of Act No 218/2000 Coll.

### **Utilisation of subsidy to cover ineligible costs**

In several cases, both beneficiaries also used the subsidy to cover ineligible costs, i.e. in contravention of the subsidy decision.

### **Education without accreditation**

For more than 3 months, the Jihlava Hospital was running an education programme in the field of *Gynaecology and Obstetrics* although it had no valid accreditation for this field at that time.

### **Retention of unused subsidy funds**

The Thomayer Hospital did not return the unused part of the provided subsidies from the state budget in the total amount of CZK 267,142 within the stipulated period.

## **4. The system of specialisation education of doctors is fragmented**

In recent years, there have been a number of fundamental changes in specialisation education in medical fields. For example, the period of education in the common basis has been extended, the content of education programmes has been modified, and as early as 2011 universities or their FoM, which, on the basis of public contracts concluded with the MoH, implement the theoretical part of education, which until then was fully provided by IPVZ, became involved in the system. The contracts concerned the specialisation education of doctors and dentists in basic fields, with the exception of the basic fields of General Practical Medicine and General Medicine for Children and Adolescents, which remained under the IPVZ. Currently, a number of entities (MoH, health care facilities, four universities, i.e. eight of their FoM, and IPVZ) with different positions are active in the specialisation education of doctors. After transferring most of the theoretical training to universities, IPVZ has lost its key position and the MoH should consider its future role in the system. **In the opinion of the SAO, the transformation of the system of specialisation education in medical fields, which began with the involvement of universities in 2011, has not been completed yet.**

The amendment to Act No 95/2004 Coll., which came into effect on 1 July 2017<sup>16</sup>, newly defined the examination after completion of education in the common basis, among other changes. The examination rules of this examination and the composition of the committee were to be regulated by an implementing regulation according to the relevant provision. The relevant decree was issued and came into effect in November 2019, i.e. more than two years after the definition of the examination by law.

In connection with the changes brought by the amendment, it was also necessary to revise the education programmes for individual fields. However, these were being completed and gradually issued until September 2019, i.e. more than two years after the amendment to the Act. Only then could applications for accreditation for the relevant education be processed.

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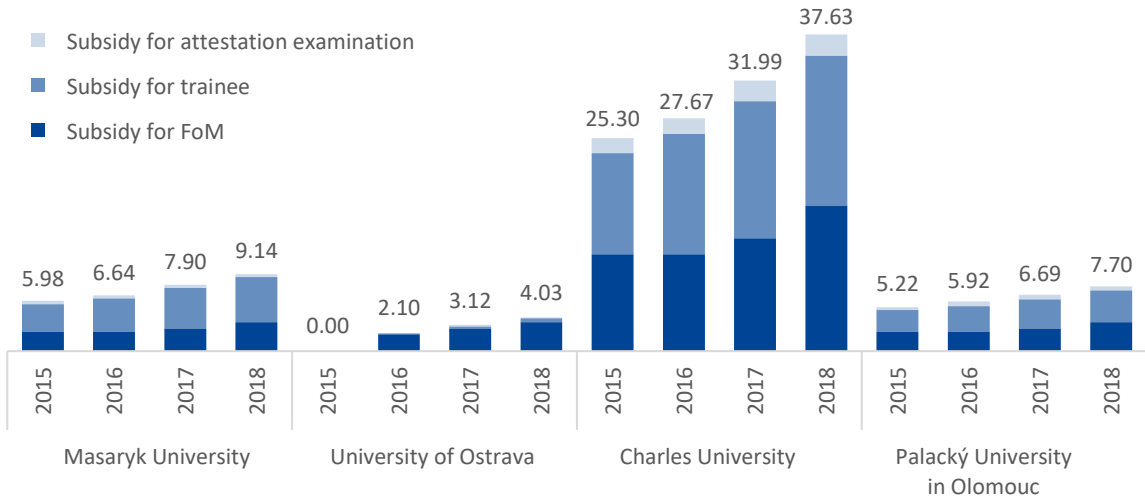
<sup>16</sup> Act No 67/2017 Coll., amending Act No 95/2004 Coll., on conditions for the acquisition and recognition of professional competence and specialist competence to practice as a doctor, dental practitioner or pharmacist, as amended.

Although an amendment to Act No 95/2004 Coll. bringing about a number of significant changes was adopted in 2017, the relevant implementing regulations to implement specific modifications in practice were not prepared.

**5. When setting the amount of subsidies to universities, the MoH did not assess the cost-effectiveness in its chapter. The MoH did not properly check its expenditures**

The majority of the theoretical part of specialisation education of doctors was transferred from the IPVZ to universities on the basis of public contracts concluded between the MoH and the universities in September 2011. The contracts were concluded with Charles University, Palacký University in Olomouc, Masaryk University and in 2015 also with the University of Ostrava. Each of the universities has one FoM involved, only Charles University has five. In 2017, a new contract was concluded with effect as of 1 September 2017, which also updated payments for the provided activities, among other things. The subsidy per calendar year and the faculty involved increased by 50%, i.e. from CZK 2,300,000 to CZK 3,450,000, the subsidy per one trainee in the field of specialisation education<sup>17</sup> for the calendar year remained unchanged in the amount of CZK 3,000, payment for the attestation examination increased by one-third to CZK 4,000, and a new payment for the exam upon the completion of the common basis was agreed at CZK 4,000. The following overview shows the amounts of actual use of subsidies in each year for the relevant item according to the subsidy billings submitted by the universities.

**Chart 1: Actual drawing of subsidies by universities (CZK million)**



**Source:** financial settlement of subsidies provided to universities, closing accounts, MoH materials.  
**Note:** In the years 2015 to 2018 none of the compared universities drew subsidies for examinations after the common basis.

Every year, the MoH pays tens of millions of Czech crowns to universities and this amount is still growing. Nevertheless, it did not make any calculations leading to an optimal setting of the contractual lump sums used to calculate the universities’ entitlement to subsidies, neither for the 2011 contracts nor the contract dated 2017, when these amounts were significantly increased. The MoH did not set objective criteria to assess the adequacy of the amount of

<sup>17</sup> The amount of entitlement was supposed to be determined on a monthly basis, as the number of trainees registered as of the 15th day of the month multiplied by the rate of CZK 250, and in total as a sum of the twelve amounts.

reimbursement to universities for securing the implementation of specialisation education. **The MoH thus did not assess the economy of the funds spent in its chapter.**

The following table contains the conversion of the fixed lump-sum subsidy per involved FoM and year, i.e. the sum of these payments for all FoM of the universities, to the average number of trainees per year.

**Table 3: Overview of subsidies per FoM (CZK)**

University	Year	Subsidy for involved FoM	Subsidy for trainee	Average number of trainees	Share of subsidy per FoM and per trainee
Masaryk university	2015	2,300,000.00	3,252,750.00	1,084.25	2,121.28
	2016	2,300,000.00	3,950,500.00	1,316.83	1,746.61
	2017	2,683,333.00	4,826,750.00	1,608.92	1,667.79
	2018	3,450,000.00	5,352,750.00	1,784.25	1,933.59
University of Ostrava	2015	0.00	0.00	0.00	–
	2016	1,975,807.51	120,000.00	40.00	49,395.19
	2017	2,683,333.00	229,750.00	76.58	35,038.08
	2018	3,450,000.00	431,750.00	143.92	23,972.21
Charles University	2015	11,500,000.00	12,007,250.00	4,002.42	2,873.26
	2016	11,500,000.00	14,319,490.00	4,773.16	2,409.30
	2017	13,416,665.00	16,260,000.00	5,420.00	2,475.40
	2018	17,250,000.00	17,847,500.00	5,949.17	2,899.57
Palacký University in Olomouc	2015	2,300,000.00	2,598,000.00	866.00	2,655.89
	2016	2,300,000.00	3,051,250.00	1,017.08	2,261.37
	2017	2,683,333.00	3,450,630.00	1,150.21	2,332.91
	2018	3,450,000.00	3,743,750.00	1,247.92	2,764.61

**Source:** financial settlement of subsidies provided to universities, closing accounts.

**Note:** Average number of trainees was determined as a share of the total drawn sum in the column “Subsidy for trainee” and the sum of CZK 3,000 which is set as the lump-sum per year and per trainee.

The conversion of the lump sum of subsidies at the FoM to the number of trainees registered by the relevant university in the field of specialisation education in the calendar year shows a significant difference between the amount at the University of Ostrava and the amounts at the other universities. In 2018, when the University of Ostrava was involved in the provision of specialisation education for the third year, the converted lump sum at the FoM for the supervised trainees was at least eight times the amount provided to the other universities. **Therefore, the MoH paid significantly different amounts to the individual universities for the provision of identical activities resulting from the concluded public contracts in the period under review. Such use of state funds, where the MoH did not provide for the set tasks with the lowest possible spending of these funds while ensuring the required quality of the performed tasks, was uneconomical.**

The MoH did not specify the exact mechanism for calculating the subsidy per trainee in any of the binding documents, contracts, methodologies, decisions or other published information. As a result, the final reports and the financial settlement of subsidies from the state budget, submitted annually by the individual universities, differed from one another and, in particular in the case of subsidies for trainees, made it difficult or even impossible to check their correctness. Moreover, in the case of one of the universities, there was a manifest error in the billing of subsidies for the trainees for 2016, when the university received CZK 120,000 from the trainee lump sum. However, according to the documents submitted in the billing of

subsidies, the university was supposed to refund CZK 74,500 to the state budget for the reported part of the subsidy. **The MoH accepted the incorrect billing without contradiction, did not request a remedy or refund of a part of the subsidy from the subsidy beneficiary, and did not inform the competent tax office. The MoH thus proceeded in contradiction with Section 14f of Act No 218/2000 Coll. These resources were spent inexpediently from the MoH chapter.**

An erroneous billing, including the financial settlement of the subsidy, was also submitted annually by another university, which did not indicate the number of trainees at the relevant date and provided data in contradiction with the instructions laid down in the contracts concluded or in the billing information<sup>18</sup>. However, the MoH also accepted these billings.

**In the above-mentioned cases, the MoH did not carry out a thorough check of the factual correctness of the submitted documents, and thus violated Act No 320/2001 Coll.<sup>19</sup> and, at the same time, failed to fulfil its obligation to monitor and evaluate the economy, efficiency and effectiveness of spending in its chapter<sup>20</sup>.**

After the end of the year, the universities present only very brief overviews, on the basis of which they show their entitlement to a specific amount of the subsidy – the breakdown of the lump-sum subsidy at the FoM into several basic items (material consumption, personnel costs etc.); in the case of subsidies for the trainees or examinations, they present only tables with the numbers of trainees and examinations without any documents to prove their correctness. **Billing in this form is only formal and does not allow verification of the correctness of the subsidy amount calculation without any other supporting documents.** However, the MoH carried out an inspection directly at the beneficiary at a single university over four years of the period under review, namely at the beginning of 2015.

During the audit of the selected university and one of its FoM, the SAO found that the university had not reliably kept the number of registered trainees, which is the basis for the calculation of one of the components of the provided subsidy.

## **6. Contributory organisations of the MoH active in the field of postgraduate education in health care violated laws and their internal control systems did not work. IPVZ operates a hotel whose accommodation capacity is used by course participants only minimally**

The IPVZ and NCONZO are contributory organisations established by the MoH, which, among other things, fulfil tasks related to further education of health care professionals in the health care sector. Their main mission is to implement selected parts of education programmes. Both organisations are also responsible for the management of state property, which is to provide accommodation capacity for participants in training courses.

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<sup>18</sup> E.g. the number of trainees registered as of the 15th day of the month is given in figures with two decimal places; in 2015 and 2016, the number of trainees reported in January was more than 14 times higher compared to the other months of the year.

<sup>19</sup> Section 11 of Act No 320/2001 Coll.

<sup>20</sup> Section 39(3) of Act No 218/2000 Coll.



**The SAO audit found that both of these so-called in-service training organisations violated the law in their operations during the period under review. Their internal control systems were, therefore, ineffective.**

The IPVZ did not publish orders for the services provided in the register of contracts during the period under review. As the orders were not published, they were cancelled automatically from the beginning, and the IPVZ thus received performance in the amount of CZK 1,609,605 without legal reason. In one case, the NCONZO also violated Act No 340/2015 Coll.<sup>21</sup> because it did not publish an order with a value of performance of CZK 64,578. At the NCONZO, the audit also revealed a number of shortcomings in accounting and also violations of Act No 218/2000 Coll. In this context, the SAO filed a notification concerning the total amount of CZK 64,578 with the competent tax authority.

**The hotel under the competence of the IPVZ is used only minimally to support education.**

The accommodation capacity of the hotel, which is located directly at the Budějovická metro station in Prague and which was entrusted to the IPVZ for the purpose of providing accommodation and training rooms for participants in postgraduate education in health care, was utilised at the rate of 66.5-79.9% in the period under review. In connection with its main mission, however, the IPVZ used it only minimally during the period under review. For example, in 2015 and 2016, the proportion of accommodated trainees was less than 10% of the total occupancy rate of the hotel; the hotel restaurant also served for commercial purposes, i.e. for other activities, at a rate of more than 60% in the period under review. With regard to objective information about the use of the hotel capacity and the transformation of postgraduate medical education, as its core part was transferred to the FoM and the role of the IPVZ in it was significantly reduced, the SAO is of the opinion that the reasons for the IPVZ to continue providing accommodation services no longer exist.

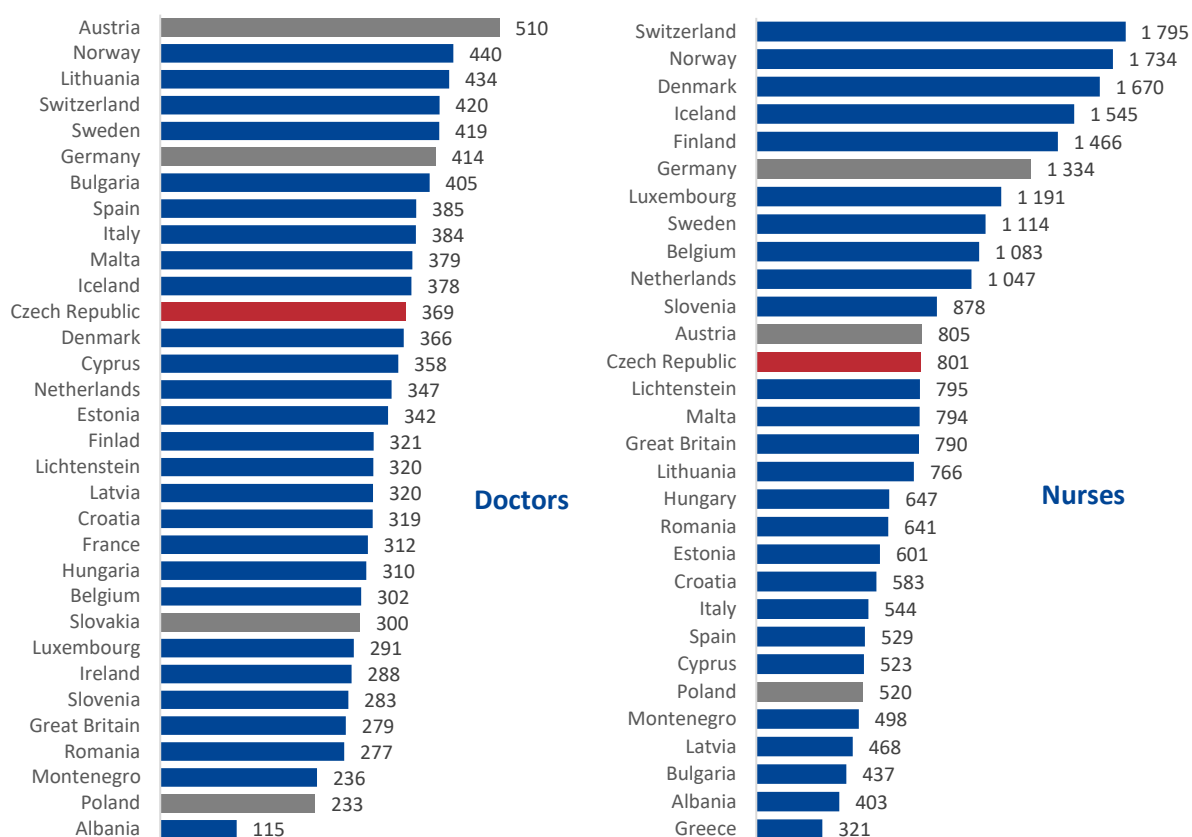
## **7. In recent years, the MoH has been responding to calls to ensure the personnel stability of the Czech health care system and cooperates with the MoEYS**

During the audit, the MoH submitted an international comparison of the number of doctors and nurses per 100 thousand inhabitants to the SAO. The data are based on Eurostat data and should reflect the situation in 2015 or the immediately preceding year. According to this information, there were 369 doctors per 100 thousand inhabitants in the Czech Republic, which is a higher number than in neighbouring Poland or Slovakia but lower than in Austria or Germany; nevertheless, it is still above the average of the aforesaid European states, which is 339 doctors per 100 thousand inhabitants. When comparing the number of nurses, the situation was similar; in the Czech Republic there were 801 per 100 thousand inhabitants. However, this figure is below the average of the countries included in the chart below, which is 878 nurses per 100 thousand inhabitants.

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<sup>21</sup> Act No 340/2015 Coll., on Special Conditions for the Effectiveness of Certain Contracts, the Disclosure of These Contracts and the Register of Contracts (Act on the Register of Contracts).

**Chart 2: International comparison – number of doctors and nurses per 100 thousand inhabitants in selected European countries**



**Source:** MoH documents (processed by IHIS from Eurostat data – last update on 31 August 2017, date of data acquisition 2 August 2018 doctors, 29 April 2018 nurses).

**Note:** The data are for the year 2015 or closest preceding year. For nurses the data for the CR in international statistics come from programmes of statistical surveys – it is not possible to rule out duplicities in nurses’ headcounts of several health facilities.

According to the analyses of the Institute of Health Information and Statistics of the Czech Republic (hereinafter the “IHIS”)<sup>22</sup>, there is no significant drop in the total number of doctor FTEs in health care year-on-year. However, the numbers of general nurses working in acute inpatient care, where there is a steady decrease in available FTEs, seem problematic. There are also great differences in the number of doctor and nurse FTEs between individual regions of the Czech Republic, which may have a negative impact on access to care.

In the long term, one of the greatest threats in the staffing of the Czech health sector is the increasing average age of doctors, especially in some fields (see Annex 2). However, in recent years steps have been taken to help ensure sufficient staffing capacity in the health sector. On the basis of cooperation between the MoH and the MoEYS, a long-term financial measure was prepared to increase the capacities of the Faculties of Medicine for the period of 2019-2029, which the Government of the Czech Republic approved by its Resolution No 563 of 4 September 2018. The aim of this measure is primarily to provide financial support for capacity building by increasing the number of students enrolled in the first year of the *General*

<sup>22</sup> Personnel capacity in Czech health care in 2017 (available at <https://www.uzis.cz/index.php?pg=vystupy--statistika-vybranych-ekonomicky-temat--pracovnici-odmenovani>).

*Medicine* study programme by 15%. According to the Resolution, the Minister of Education, Youth and Sports should continuously monitor and evaluate the fulfilment of the set objectives. The following table shows the expected development of the number of students in the *General Medicine* study programme in 2019-2029.

**Table 4: Model of increase in the number of students in the *General Medicine* study programme in 2019–2029**

Assessed parameters	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Model number of students in 1 <sup>st</sup> year	1,900	2,185	2,185	2,185	2,185	2,185	2,185	2,185	2,185	2,185	2,185
Model number of students in 6 <sup>th</sup> year	1,300	1,300	1,300	1,300	1,300	1,300	1,505	1,505	1,505	1,505	1,505
Model number of students in 1 <sup>st</sup> year to 6 <sup>th</sup> year	9,330	9,615	9,886	10,142	10,413	10,598	10,727	10,727	10,727	10,727	10,727
Increase in number of FoM students compared to baseline	–	3.0%	5.9%	8.6%	11.5%	14.0%	14.9%	14.9%	14.9%	14.9%	14.9%
Expected increase in the number of graduates compared to situation in 2014-2017	–	0%	0%	0%	0%	0%	11.4%	11.4%	11.4%	11.4%	11.4%

**Source:** long-term financial measure to increase the capacities of the Faculties of Medicine approved by the Resolution No 563 of the Government of the Czech Republic on 4 September 2018.

According to the long-term financial measure, the total number of students should increase gradually up to the seventh year of duration of the measure, when the total number of students should stabilise. The measure also envisages an increase in the teaching capacity, at a rate corresponding to the growth in the number of students, which should maintain the existing quality of teaching. By 2029, a total of CZK 6.8 billion will be provided for this measure from the state budget. In the years 2019-2021, CZK 500 million annually, CZK 600 million each year from 2022 to 2024, and CZK 700 million annually until 2029.

In this context, however, it should be noted that the increase in the number of FoM graduates will subsequently lead to the need to increase capacities in specialisation education, which will also put pressure on the drawing of additional funds from the MoH chapter by universities and health care facilities.

The MoH annually increases the volume of subsidies to support the practical part of specialisation education in health care for both medical and non-medical professionals. In the years 2015-2018, the sum of money spent nearly tripled. However, the impact of these resources is not yet apparent in the system. The correct targeting of subsidies thus remains a major challenge and it is necessary to ensure that the subsidies have a real impact on maintaining or increasing the capacity of health care professionals in the sectors and locations most at risk of lack of skilled professionals.

In the area of ensuring sufficient staff for non-medical health professions, the MoH and the MoEYS actively cooperated in 2015-2018 in the form of meetings of the interdepartmental health education committee, meetings of the working group for non-medical health professions, and correspondence relating mainly to the adoption of new legislation in the area of nurse training.

## List of abbreviations

CR	Czech Republic
IPVZ	Institute for Postgraduate Medical Education
FoM	Faculty of Medicine
MoEYS	Ministry of Education, Youth and Sports
MoH	Ministry of Health
NCONZO	National Centre of Nursing and Non-Medical Health Care Fields
SAO	Supreme Audit Office
SE	specialisation education
training places	residential places according to Act No 95/2004 Coll. and Act No 96/2004 Coll., training places aided under extraordinary subsidy programmes for medical fields
IHS	Institute of Health Information and Statistics of the Czech Republic

**Table 1: Subsidies for training places in medical fields – programme No 1 (common basis)**

Year	Minimal length of specialisation education in the common basis (months)	Subsidy amount per trainee per month (CZK)
2015	24	10,000
2016	24	13,000
2017	24	25,000
2018	30	10,000

**Source:** methodology for applicants for subsidies from the state budget for a residential place in programme No 1 in the years 2015-2018.

**Note:** Subsidy amount for years 2012 and 2013 was CZK 5,000/month, for the year 2014 it was CZK 9,000/month.

**Table 2: Number of training places launched in the years 2015-2018 in programmes aimed at the entire specialisation education, subsidy per trainee for the entire period of specialisation education (CZK)**

Field of specialisation education	2015		2016		2017		2018	
	Number of places	Subsidy for place for entire SE	Number of places	Subsidy for place for entire SE	Number of places	Subsidy for place for entire SE	Number of places	Subsidy for place for entire SE
General practical medicine	100	1,188,000	110	1,368,000	100	1,440,000	110	1,440,000
Practical medicine for children and adolescents	25	1,584,000	25	1,824,000	25	1,920,000	0	–
Paediatric medicine	0	–	35	1,800,000	40	2,100,000	0	–
Gynaecology and Obstetrics	30	708,000	35	1,800,000	30	2,100,000	25	1,890,000
Internal medicine	0	–	45	1,800,000	50	2,100,000	50	2,100,000
Anaesthetics and intensive care medicine	0	–	40	1,800,000	40	2,100,000	40	1,890,000
Psychiatrics	0	–	10	1,800,000	10	2,100,000	10	1,890,000
Rehabilitative and physical medicine	0	–	0	–	10	2,100,000	0	–
Paediatric and adolescent psychiatrics	0	–	8	1,800,000	0	–	0	–
Surgery	50	864,000	45	2,160,000	45	2,520,000	40	2,100,000
Radiology a imaging methods	0	–	30	1,800,000	25	2,100,000	20	1,890,000
Neurology	15	708,000	30	1,800,000	25	2,100,000	20	1,890,000
Pathology	10	708,000	0	–	0	–	0	–
Maxillofacial surgery	0	–	0	–	0	–	10	2,100,000
Paediatrics	0	–	0	–	0	–	80	1,890,000
Oral and maxillofacial surgery	0	–	0	–	0	–	10	2,100,000
Nuclear medicine	10	708,000	0	–	0	–	0	–
<b>Total</b>	<b>240</b>	<b>–</b>	<b>413</b>	<b>–</b>	<b>400</b>	<b>–</b>	<b>415</b>	<b>–</b>

**Source:** methodologies for applicants for subsidies from the state budget for a residential place in programme No 2 and 3 in the years 2015-2018.

**Note:** In update number II there were, for the year 2016, 48 places in the field of Internal medicine, 6 places in Paediatric and adolescent psychiatrics and 39 places in the field of Anaesthesiology.

**SE** – specialisation education.

The following aid has been announced in extraordinary programmes:

- General Practical Medicine 2017 – 30 trainees with a subsidy of CZK 1,440,000 for the entire specialisation education per person;
- Graduates 2017 – see the following table;
- Paediatrics Department 2018 – 35 trainees with a subsidy of CZK 1,890,000 for the entire specialisation education per person;
- Department of General Medicine for Children and Adolescents – 15 trainees with a subsidy of CZK 1,680,000 for the field of general medicine for children and adolescents and CZK 1,890,000 for the field of paediatrics for the entire specialisation education per person.

**Table 3: Supported training places launched in the programme for 2017 graduates**

Specialisation education field	2017 graduates	
	Number of trainees	Subsidy per person for entire SE (CZK)
General practical medicine	70	1,440,000
Gynaecology and Obstetrics	20	1,890,000
Internal medicine	40	2,100,000
Anaesthetics and intensive care medicine	30	1,890,000
Psychiatrics	8	1,890,000
Rehabilitative and physical medicine	7	1,680,000
Surgery	35	2,100,000
Radiology a imaging methods	20	1,890,000
Neurology	20	1,890,000
Paediatrics	30	1,890,000
<b>Total</b>	<b>280</b>	<b>-</b>

**Source:** Methodology for applicants for a subsidy from the state budget for the support of specialisation education in selected fields for 2017 – 2017 graduates.

**Table 4: Number of training places launched in 2015-2018 for specialisation education in non-medical fields, subsidy per trainee for minimal length of study**

Name of field	Specialisation education field	Subsidy for minimal length of study per trainee (CZK)	Number of places			
			2015	2016	2017	2018
General nurse	Intensive care	120,000	95	134	150	200
	Intensive care in paediatrics	120,000	20	30	30	40
	Perioperative care	120,000	20	20	50	50
	Nursing care in paediatrics	90,000	20	20	30	40
	Nursing care in psychiatrics	90,000	20	30	20	10
	Nursing care v internal medicine fields	90,000	0	20	25	35
	Nursing care in surgical fields	90,000	0	20	25	35
	Community nursing care	90,000	0	10	5	0
Midwife	Perioperative care in Gyn. and obstetrics	120,000	0	0	0	10
Medical laboratory technician	Clinical haematology and transfusion service	90,000	31	5	10	20
	Histology	90,000	10	10	10	0
	Microbiology	90,000	0	5	0	0
	Clinical genetics	90,000	10	0	0	0
	Clinical biochemistry	90,000	20	10	10	15
	Investigation methods in safeguarding and promoting public health	90,000	20	0	0	0
	Allergology and clinical immunology	90,000	0	5	0	0
Paramedic	Emergency medicine	120,000	25	10	5	5
Speech therapist	Clinical speech therapy	120,000	0	5	10	10
Medical laboratory professional	Safeguarding and promoting public health	90,000	30	0	0	0
Physiotherapist	Applied physiotherapy	90,000	20	20	20	20
Radiological assistant	Radio diagnostic imaging	90,000	0	5	15	20
	Nuclear medicine imaging	90,000	0	0	5	5
	Imaging and radiation therapy	90,000	0	5	5	5
Occupational therapist	Occupational therapy for adults	90,000	0	0	5	10
Health care professionals listed in Sections 5 to 8 in Act No 96/2004 Coll.	Health care organisation and management	90,000	0	0	5	10
Assistant in safeguarding and promoting public health	Hygiene a epidemiology	90,000	25	0	0	0
Professional in safeguarding and promoting public health	Hygiene a epidemiology	90,000	25	0	0	0
Psychologist in health care	Clinical psychology	120,000	0	10	5	5
Dietitian	Adult nutrition	90,000	0	0	10	10
<b>Total</b>			<b>391</b>	<b>374</b>	<b>450</b>	<b>555</b>

**Source:** MoH methodology for applicants for a subsidy from the state budget in the programme for residential places in specialisation education in non-medical fields in 2015-2018

## More information related to the topic being reviewed

### A. Additional information on undergraduate education

**Table 1: Number of candidates enrolled, accepted and registered to study a medical study programme (from field group 53 – *Health care*) at a university**

	Number of enrolled candidates*	Number of accepted candidates	Number of candidates registered to study
<b>2015</b>	<b>12,874</b>	<b>4,900</b>	<b>3,795</b>
Nursing	3,980	1,791	1,430
Midwifery	942	467	291
Physical rehabilitation	102	90	60
Health care specialisation	7,399	2,254	1,800
Public health care	77	53	39
Health and social care	374	245	175
<b>2016</b>	<b>12,514</b>	<b>5,024</b>	<b>3,807</b>
Nursing	3,483	1,868	1,441
Midwifery	1,029	466	277
Physical rehabilitation	94	82	64
Health care specialisation	7,267	2,139	1,683
Public health care	144	101	63
Health and social care	497	368	279
<b>2017</b>	<b>11,768</b>	<b>5,219</b>	<b>3,903</b>
Nursing	2,992	1,845	1,445
Midwifery	890	486	302
Physical rehabilitation	79	60	34
Health care specialisation	7,371	2,523	1,891
Public health care	102	63	46
Health and social care	334	242	185
<b>2018</b>	<b>11,238</b>	<b>4,984</b>	<b>3,767</b>
Nursing	2,638	1,728	1,377
Midwifery	1,087	503	314
Physical rehabilitation	33	29	13
Health care specialisation	7,080	2,461	1,853
Public health care	43	21	19
Health and social care	357	242	191
<b>Total sum</b>	<b>48,394</b>	<b>20,127</b>	<b>15,272</b>

**Source:** MoEYS information. (The data was drawn from the U 6-99 statement on the course of admission procedures to enter a university. The data are collected solely for undergraduate and non-subsequent graduate programmes. The data is not collected for state universities.)

\* Number of persons who arrived at the entrance examination, if it took place, or who were accepted without an entrance examination.

**Table 2: Number of candidates enrolled, accepted and registered to study in the *General Medicine* study programme**

	Number of enrolled candidates*	Number of accepted candidates	Number of candidates registered to study
<b>2015</b>	<b>10,072</b>	<b>2,350</b>	<b>1,451</b>
Masaryk University	1,639	398	223
University of Ostrava	664	75	64
Charles University	6,531	1,644	1,007
Palacký University in Olomouc	1,238	233	157
<b>2016</b>	<b>10,083</b>	<b>2,463</b>	<b>1,469</b>
Masaryk University	1,634	436	256
University of Ostrava	720	66	65
Charles University	6,580	1,732	1,009
Palacký University in Olomouc	1,149	229	139
<b>2017</b>	<b>10,483</b>	<b>2,417</b>	<b>1,480</b>
Masaryk University	1,556	412	252
University of Ostrava	699	113	91
Charles University	7,046	1,647	980
Palacký University in Olomouc	1,182	245	157
<b>2018</b>	<b>9,727</b>	<b>2,319</b>	<b>1,521</b>
Masaryk University	1,628	381	245
University of Ostrava	706	121	104
Charles University	6,301	1,594	1,029
Palacký University in Olomouc	1,092	223	143
<b>Total sum</b>	<b>40,365</b>	<b>9,549</b>	<b>5,921</b>

**Source:** MoEYS information. (The data was drawn from the U 6-99 statement on the course of admission procedures to enter a university. The data are collected solely for undergraduate and non-subsequent graduate programmes. The data is not collected for state universities.)

\* Number of persons who arrived at the entrance examination, if it took place, or who were accepted without an entrance examination.

**Table 3: Contribution per student studying in the *General Medicine* study programme in 2015-2018**

Year	2015	2016	2017	2018
Contribution to institutional financing (BO I) (CZK thousand)	16,112,149	15,426,023	16,186,023	18,186,023
Number of specification students (SIMS data)	449,331	427,000	439,250	424,107
Average specification (CZK)	35,858	36,127	36,849	42,881
Coefficient of economic burden of study programme	2.8	2.8	2.8	2.8
<b>Contribution per student in the <i>General Medicine</i> study programme (CZK)</b>	<b>100,402</b>	<b>101,156</b>	<b>103,177</b>	<b>120,066</b>

**Source:** MoEYS information.

**BO I** – budget heading I of the budget of public universities.

**SIMS** – student register information system.



**Table 4: Number of candidates enrolled, accepted and registered to study in the *Dentistry* study programme**

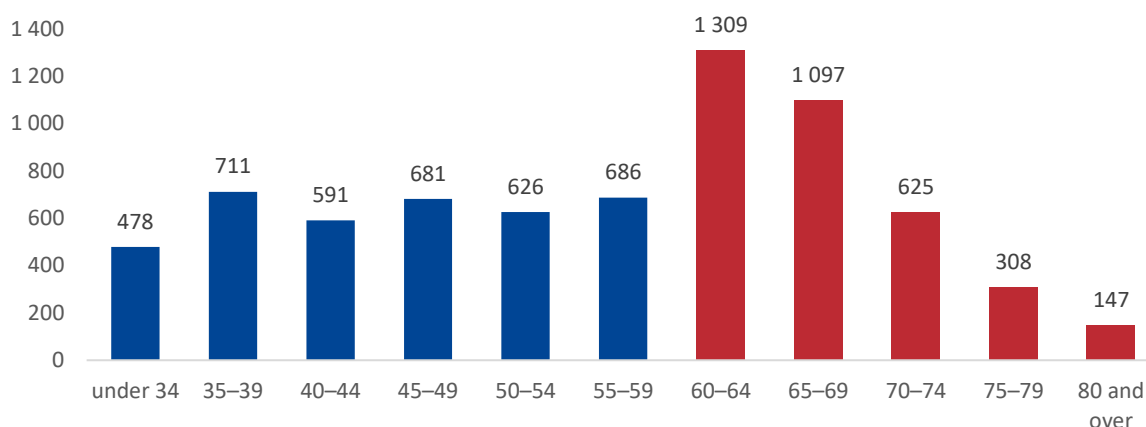
	Number of enrolled candidates*	Number of accepted candidates	Number of candidates registered to study
<b>2015</b>	<b>2,886</b>	<b>316</b>	<b>207</b>
Masaryk University	716	80	44
Charles University	1,524	171	117
Palacký University in Olomouc	646	65	46
<b>2016</b>	<b>2,651</b>	<b>329</b>	<b>203</b>
Masaryk University	675	86	50
Charles University	1,394	178	102
Palacký University in Olomouc	582	65	51
<b>2017</b>	<b>2,858</b>	<b>342</b>	<b>229</b>
Masaryk University	714	94	46
Charles University	1,493	179	128
Palacký University in Olomouc	651	69	55
<b>2018</b>	<b>2,394</b>	<b>286</b>	<b>200</b>
Masaryk University	601	55	30
Charles University	1,221	164	118
Palacký University in Olomouc	572	67	52
<b>Total sum</b>	<b>10,789</b>	<b>1,273</b>	<b>839</b>

**Source:** MoEYS information. (The data was drawn from the U 6-99 statement on the course of admission procedures to enter a university. The data are collected solely for undergraduate and non-subsequent graduate programmes. The data is not collected for state universities.)

\* Number of persons who arrived at the entrance examination, if it took place, or who were accepted without an entrance examination.

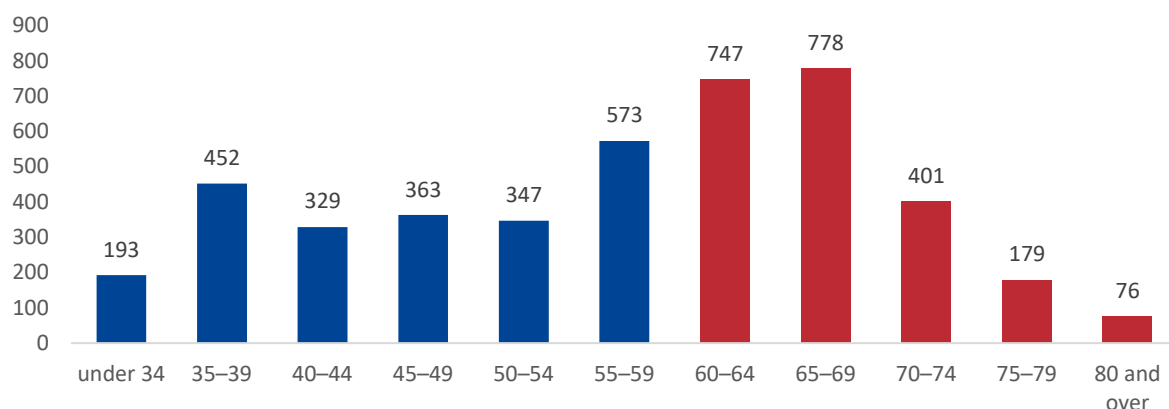
## **B. Age of health care professionals in selected fields**

**Chart 1: Number of general practitioners according to age in the *National register of health care professionals* (as of 1 June 2019)**



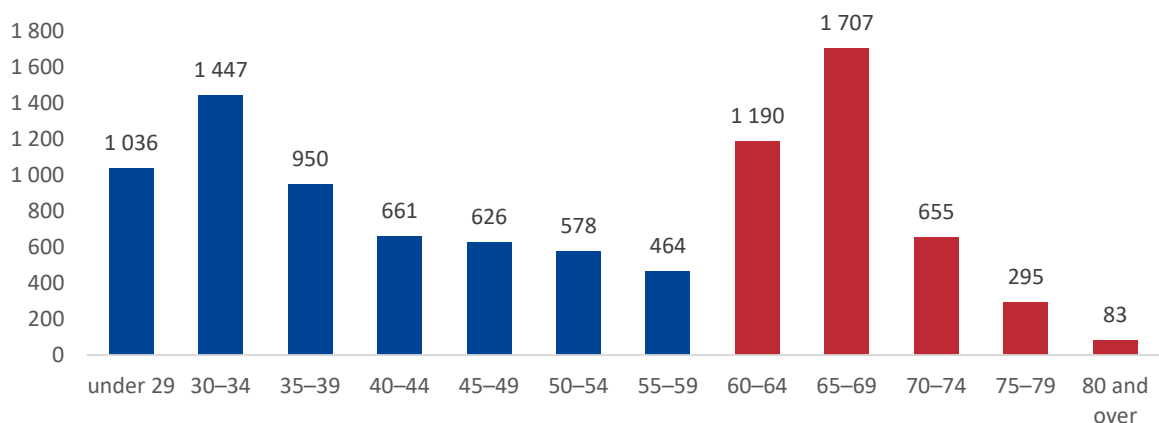
**Source:** MoH documents (processed by IHIS).

**Chart 2: Number of general practitioners for children and adolescents according to age in the *National register of health care professionals* (as of 1 June 2019)**



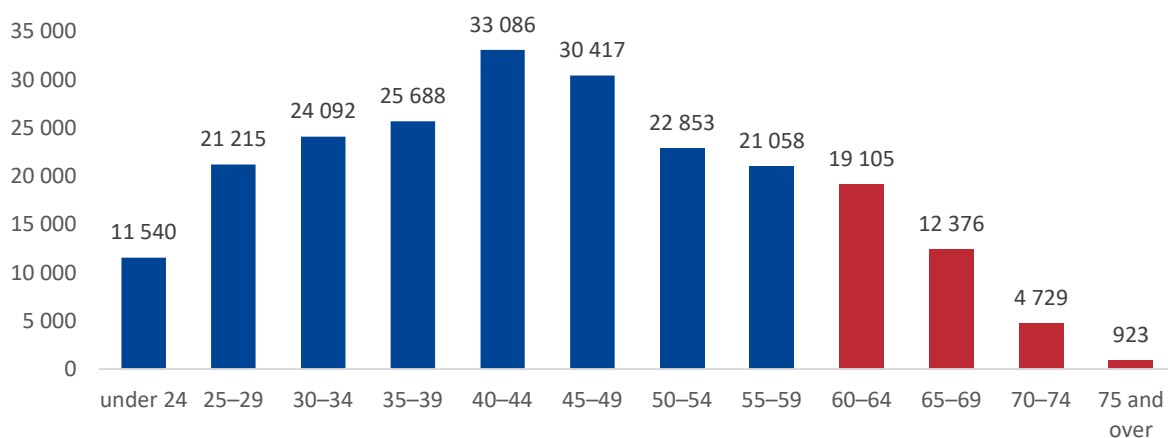
Source: MoH documents (processed by IHIS).

**Chart 3: Number of dentists according to age in the *National register of health care professionals* (as of 1 June 2019)**



Source: MoH documents (processed by IHIS).

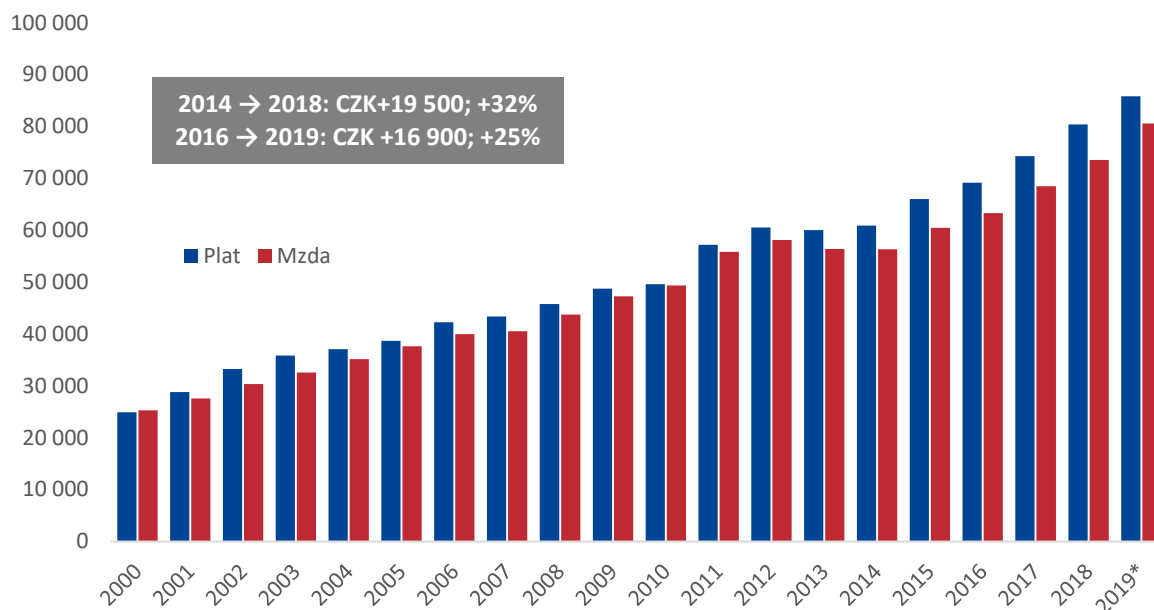
**Chart 4: Number of non-medical health care professionals according to age in the *National register of health care professionals* (as of 1 June 2019)**



Source: MoH documents (processed by IHIS).

### C. Remuneration of doctors and nurses in the inpatient care segment

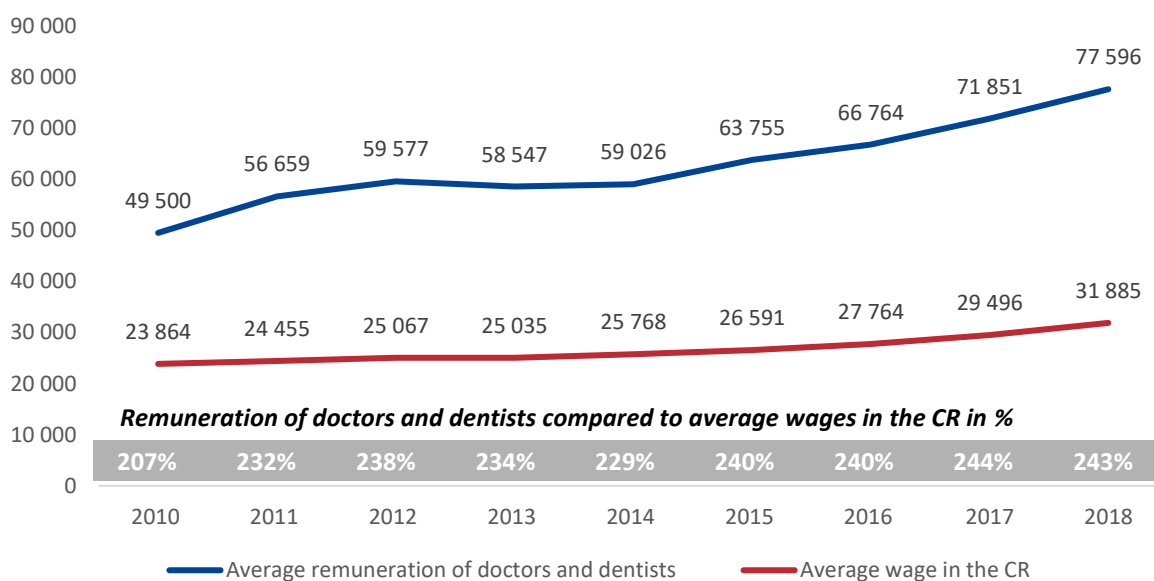
Chart 5: Development in the remuneration of doctors (CZK)



Source: MoH documents (processed by IHIS) **Chyba! Záložka není definována..**

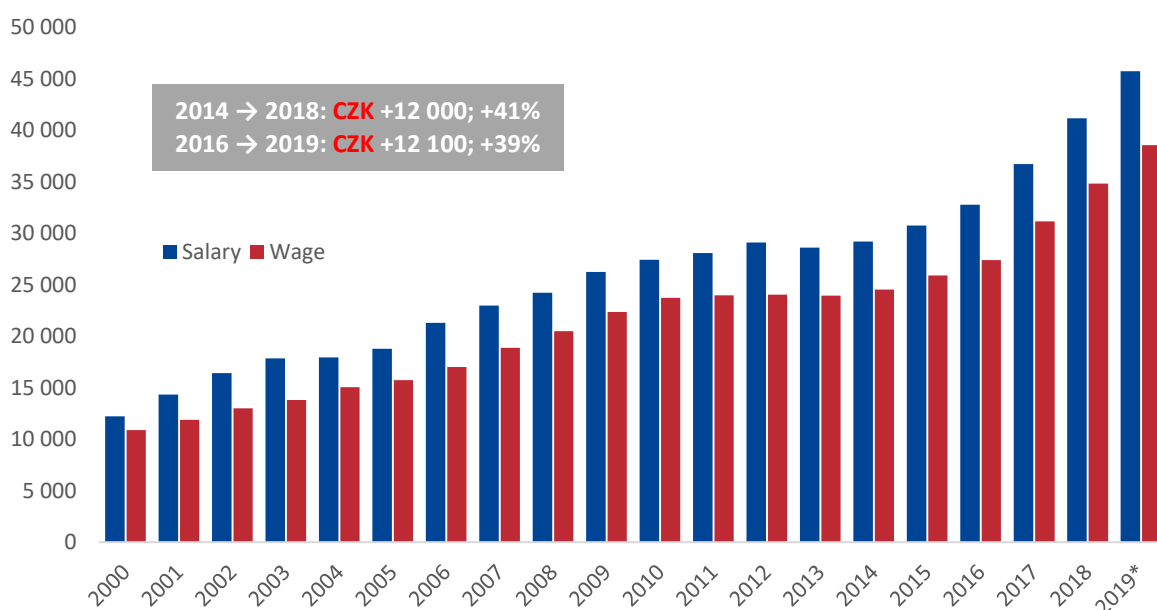
\* Probabilistic model of the amount of remuneration for an entire year based on the data from the 1<sup>st</sup> quarter of 2019.

Chart 6: Remuneration of doctors – compared to average wage in the Czech Republic (CZK)



Source: MoH documents (processed by IHIS) **Chyba! Záložka není definována..**

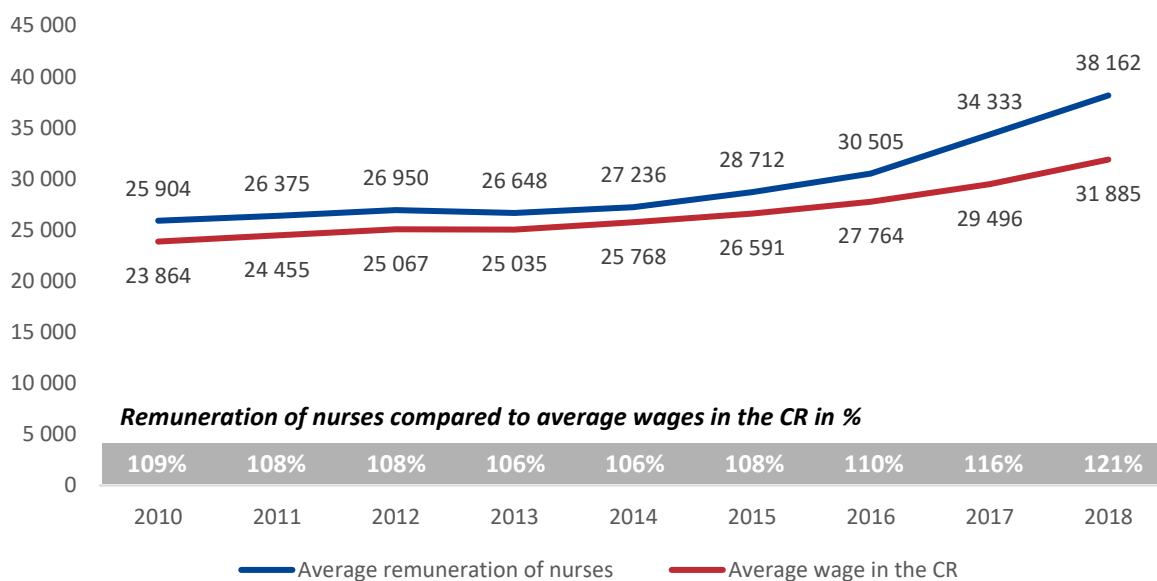
**Chart 7: Development in the remuneration of nurses in the inpatient care segment (CZK)**



**Source:** MoH documents (processed by IHIS) **Chyba! Záložka není definována..**

\* Probabilistic model of the amount of remuneration for an entire year based on the data from the 1<sup>st</sup> quarter of 2019.

**Chart 8: Remuneration of nurses – compared to average wage in the Czech Republic (CZK)**



**Source:** MoH documents (processed by IHIS)<sup>23</sup>.

<sup>23</sup> The document is also available on the web page of the Ministry of Health at the following link: [https://www.mzcr.cz/Soubor.ashx?souborID=37371&typ=application/pdf&nazev=Prezentace\\_odm%C4%9B%C5%88ov%C3%A1n%C3%AD%20zdravotn%C3%ADk%C5%AF%20v%20seqmentu%20I%C5%AF%C5%BEkov%C3%A9%20p%C3%A9%20C4%8De.pdf](https://www.mzcr.cz/Soubor.ashx?souborID=37371&typ=application/pdf&nazev=Prezentace_odm%C4%9B%C5%88ov%C3%A1n%C3%AD%20zdravotn%C3%ADk%C5%AF%20v%20seqmentu%20I%C5%AF%C5%BEkov%C3%A9%20p%C3%A9%20C4%8De.pdf).