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Mini-Presentation

**Agricultural Input Price Index for Veterinary Expenses**

**In Estonia**

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## **Introduction**

The veterinary activity is measured by Agricultural Input Price Index (API) and Consumer Price Index (CPI) in Estonia. This paper provides an overview of methodological framework of the API for veterinary expenses. Also market situation of veterinary activity is described.

This paper will be presented in the 30<sup>th</sup> meeting of the Voorburg Group in Sydney.

## **Definition of the service being priced for API**

Statistics Estonia publishes the API for veterinary expenses. There is measured the provision of animal health care activities for farm animals. The supervisory and control action by state are not measured.

## **Pricing unit of measure for API**

Unit of measure for offices of veterinarians (including emergency visit) is per visit or per service/treatment.

Unit of measure of veterinarians' home visit is per visit plus transport costs.

For services of the veterinary laboratory the price could be measured per test. There are available administrative prices.

## **Market conditions and constraints**

According to annual financial statistics survey of enterprises, the share of veterinary services is 0,03% of total turnover of enterprises. Enterprises with main activity M75 by Nace Rev.2 are followed. The turnover here includes veterinary services, veterinary medicines and also animals' accessories equipment sales. The market of veterinary services is small, but slowly growing.

**Table 1. Veterinary services division M75 of NACE Rev.2, 2010-2013**

<b>Year</b>	<b>Turnover Thousand Euros</b>	<b>Number of enterprises</b>	<b>Number of employees</b>
2010	7379	88	197
2011	7454	97	189
2012	10031	106	257
2013	12601	110	278

Important part of veterinary services market is regulated by legal acts, regulations and governmental agencies. The Veterinary and Food Board, a governmental agency carrying out its tasks under the government of the Ministry of Agriculture, functions as a supervising body and sees to that the requirements stipulated by the legislation that governs veterinary, food safety, market regulation, animal welfare and farm animal breeding are followed and executes supervision over fulfillment of these requirements and applies enforcement by state pursuant to the procedures and in the amount prescribed by law. The Veterinary and Food Board is issuing activity licenses' for the provision of veterinary services. There are over 1000 veterinarians with activity license and 91 of them are also accredited by VTF in 2015. These 91 veterinarians are providing regulated services in addition to for example private veterinary services.

The Estonian Veterinary and Food Laboratory (VFL) is responsible for priority statutory testing under various farm and wild animal disease surveillance and food safety control programs, also provides inspection authorities with relevant analytical support. Along the statutory functions the VFL offers the laboratory service and advice to private veterinarians and farmers for diagnosis and control of bacterial, viral and parasitic diseases of animals and to food processing industry for food safety and quality control.

Data on identified farm animals, the places in which they are kept, certified abattoirs and animal waste processing companies is recorded in the register of farm animals is duty of Estonian Agricultural Registers and Information Board. The aims of gathering such data are to prevent and eliminate contagious animal diseases and to protect people from diseases and illnesses shared with and spread by the animals. Registration of farm animals in the national register is a prerequisite in the payment of support for animals.

We could find veterinarians also as employees in big farms and food industry enterprises.

For calculation of Agricultural Input Price Index detailed data of yearly financial statistics survey of agricultural producers is used. Veterinary services covers around 15-20% of agricultural producers total veterinary expenses.

**Table 2. Veterinary expenses (including medicines) of agricultural producers, 2010-2013**

Year	Thousand Euros
2010	9381
2011	10652
2012	10824
2013	11332

## Standard classification structure

For API calculation is used API classification. This classification includes group Veterinary expenses without any specific explanations. Explanatory notes are taken from Manual on the economic accounts for Agriculture and Forestry. Veterinary expenses include medicines which are not purchased together with veterinary services, fees and total services (i.e. overall payments for pharmaceutical products and fees).

The Estonian Statistical Classification of Economic Activities (EMTAK 2008) corresponds with NACE Rev. 2.

The Estonian Classification of Products and Services (TTK 2008) corresponds with CPA 2008. The CPC Rev 2 corresponding code is 835 for veterinary services.

EMTAK 2008	Description
<b>75</b>	Veterinary activities
<b>75.0</b>	Veterinary activities
<b>75.00</b>	Veterinary activities
	<b>This item includes:</b> - animal health care and control activities for farm animals - animal health care and control activities for pet animals These activities are carried out by qualified veterinarians when working in veterinary hospitals as well as when visiting farms, kennels or homes, in own consulting and surgery rooms or elsewhere.
	This class also includes:
	- activities of veterinary assistants or other auxiliary veterinary personnel - clinico-pathological and other diagnostic activities pertaining to animals - animal ambulance activities
	This item excludes:
	- farm animal boarding activities without health care, see 01.62 - sheep shearing, see 01.62 - herd testing services, droving services, agistment services, poultry caponising, see 01.62 - activities related to artificial insemination, see 01.62 - pet animal boarding activities without health care, see 96.09

<b>TTK 2008</b>	<b>Description</b>
<b>75</b>	Veterinary services
<b>75.0</b>	Veterinary services
<b>75.00</b>	Veterinary services
<b>75.00.1</b>	Veterinary services
<b>75.00.11</b>	Veterinary services for pet animals
	This item includes: - animal and veterinary hospital and non-hospital medical, surgical and dental services delivered to pet animals. The services are aimed at curing, restoring and/or maintaining the health of the animal. - hospital, laboratory and technical services, foods (including special diets) and other facilities and resources
<b>75.00.12</b>	Veterinary services for livestock
	This item includes: - animal and veterinary hospital and non-hospital medical, surgical and dental services delivered to livestock. The services are aimed at curing, restoring and/or maintaining the health of the animal. - hospital, laboratory and technical services, foods (including special diets) and other facilities and resources
<b>75.00.19</b>	Other veterinary services
	This item includes: - animal and veterinary hospital and non-hospital medical, surgical and dental services delivered to animals other than pets or livestock (including zoo animals and animals raised for their fur production or other products). The services are aimed at curing, restoring and/or maintaining the health of the animal. - hospital, laboratory and technical services, foods (including special diets) and other facilities and resources

## Evaluation of standard vs. definition and market conditions

The Statistics Estonia publishes the API sub-index for veterinary expenses in quarterly bases. The API time-series starts from 1<sup>st</sup> quarter 2003.

## National accounts concepts and measurement issues related to GDP measurement

The API data is used to deflate veterinary expenses in national accounts.

## Pricing methods

For API calculations are collected prices for vitamins, medicines and veterinary services. Veterinary services include laboratory tests prices and veterinarians visit fees. All prices are

without VAT. The vitamins and medicines prices are collected with monthly questionnaire. In the sample are enterprises with important share of selling the veterinary medicines.

Estonian Veterinary and Food Laboratory have regulated prices for veterinary laboratory test. The veterinarians visit fees per hour are available in internet web-pages.

## **Evaluation of comparability of price indexes with turnover/output data**

The financial data of enterprises have been collected on the basis of the annual and quarterly statistical surveys. The surveys population comprises enterprises included in the register of economically active enterprises called the Statistical Profile. The Statistical Profile is created on the basis of the Commercial Register and is used as the sampling frame. By number of employed persons, the survey included all enterprises with 20 and more employed persons. Stratified simple random sampling was used for small enterprises (with 1–19 employed persons).

Turnover – income from sale of all products, goods and services received or to be received, which does not include VAT and excises. Turnover is equal with the pay received or to be received and is calculated on a accrual basis accounting. Turnover excludes subsidies.

Annual turnover data are collected for division M75 of EMTAK2008 and available for use.

For API calculation is used expenditure information on service groups from annual financial data of agricultural producers. More detailed level estimation is asked directly from enterprises. Additional information about detailed turnover (according to 4-digit level EMTAK2008) of enterprises is used from Annual Report declared to Commercial Register.

## **Summary**

The Agricultural Input Price Index has quite long time-series and calculation practice. We could use existing information to start calculation the SPPI for M75 (EMTAK2008).

Additional information from Consumer Price Index (CPI) is possible to use. The CPI is measuring the provision of animal health care activities for pet animals.

For the weighting structure are available turnover data for M75 and enterprises detailed turnover data on the 4-digit level of EMTAK2008.