



Statistics  
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# **Turnover and output for Veterinary activities**

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remarks The views expressed in this paper are those of the author(s) and do not necessarily reflect the policies of Statistics Netherlands.

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# 1. Introduction

This report contains information on the size, turnover, employment, prices and other statistics of veterinary activities in the Netherlands and the use thereof for the National Accounts. Furthermore it outlines briefly the main statistical processes and some issues and challenges within these processes as well as some new developments.

## 2. Definition of service being collected

### 2.1 Classifications

The Dutch Standard Enterprise Classification (SBI 2008 Version 2014) is based on the activity classification of the European Union (Nomenclature statistique des Activités économiques dans la Communauté Européenne, NACE Rev. 2) and on the classification of the United Nations (International Standard Industrial Classification of All Economic Activities, ISIC Rev. 4).

The first four digits of the SBI 2008 Version 2014 are identical to the four digits of NACE Rev. 2. Furthermore the first three digits of the SBI 2008 Version 2014 and NACE Rev. 2 are the same as the first three digits of ISIC Rev 4. A possible fifth digit in SBI 2008 Version 2014 is for a Dutch differentiation.

**Table 1 Veterinary activities according to the different classifications**

ISIC Rev. 4	NACE Rev. 2	SBI 2008	Description
75	75	75	Veterinary activities

### 2.2 Veterinary activities

The ISIC division 75 **Veterinary activities** is part of ISIC section M Professional, scientific and technical activities. It includes the provision of animal health care and control activities for farm animals or pet animals. These activities are carried out by qualified veterinarians in veterinary hospitals as well as when visiting farms, kennels or homes, in own consulting and surgery rooms or elsewhere. It also includes animal ambulance activities.

This class includes:

- animal health care and control activities for farm animals
- animal health care and control activities for pet animals

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 class excludes:

farm animal boarding activities without health care, see 0162

- sheep shearing, see 0162
- herd testing services, droving services, agistment services, poultry caponizing, see 0162
- activities related to artificial insemination, see 0162
- pet animal boarding activities without health care, see 9609

### 3. Unit of measure to be collected

Statistics on veterinary activities are based on surveys and administrative resources of enterprises registered under ISIC division 75 Rev. 4 at the Dutch Chamber of Commerce. The enterprise, employing at least one person for 15 hours work or more, is used as the statistical unit. Given the characteristics of this branch the enterprise coincides well with the Kind of Activity Unit (KAU) preferred for STS turnover statistics.

STS turnover is defined as net turnover, proceeds from sales, excluding value-added tax (VAT), deducting discounts, premiums, deposits and freight charges. STS turnover statistics may include turnover of secondary activities too. On the other hand veterinary services that are secondary activities of other enterprises are not included in STS turnover statistics. Within SBS statistics revenues from secondary activities can partly be distinguished.

## 4. Market conditions and constraints

### 4.1 Available statistics

In table 2 the statistical information which is available for veterinary activities is shown.

**Table 2 Available statistical information on ISIC division 75**

Statistic	Business Demography	Turnover STS	Operating returns/ costs SBS	PPI/SPPI/CPI	Sentiment surveys	Bankruptcies
<b>Sector/branches (ISIC 2008)</b>						
75 Veterinary activities	Y	Y	Y	(Y)	Y	Y

#### Business demography

These are quarterly statistics on the number of enterprises, by size class and legal form. Business demography data of ISIC division 75 are available from the first quarter of 2007 and new data are published in the first month of each quarter. The most important data sources for

business demography are registers of the Dutch Chamber of Commerce and registers of the Tax Department.

#### **Structural Business Statistics (SBS)**

These are annual SBS statistics on production, employment, operating returns and costs. Data for veterinary activities in the current format are available from 2010 onwards. The most recent year is 2013. The data for 2014 will be available in March or the beginning of April 2016. The information is collected at ISIC division 75 level and also published at that level. For SBS statistics a combination of a sample survey and a census (large size classes) is being used.

#### **Short Term Statistics (STS) Turnover (and production volume)**

These are quarterly turnover statistics and the series is based on 2010 = 100. The index of turnover statistics for veterinary activities starts in 2012 and turnover change statistics are available from the first quarter of 2013. Currently no quarterly production volume statistics are available for veterinary activities.

STS turnover is for the greater part measured by using VAT-data. Apart from the VAT-data a rather small sample survey is being used.

#### **Short Term Statistics (STS) Price change**

Within Statistics Netherlands no SPPI is available for veterinary activities. Price change data for veterinary activities is however available under COICOP 09350 within the Consumer Price Index (CPI) statistics based on 2006 = 100. Apart from the regular CPI data series, data series based on constant taxes are available too. New monthly data is available after approximately 45 days. Also within the HICP based on 2005 = 100 some price change data on veterinary activities is available but with less detail as in the HICP publication the COICOP 0934/5 is being used. Again both regular and data series based on constant taxes are available.

For both the CPI and the HICP weight schemes are adjusted on a yearly basis while the reference year is maintained for a longer period. It is expected that the reference year of the CPI and HICP in the future will be changed to 2015.

#### **Business Sentiment Survey**

This quarterly statistic is set-up to provide current information on the opinions of Dutch producers, among which Dutch veterinarians, about performance and expectations concerning their enterprises. The Business sentiment survey makes it possible to identify turning points in business sentiment at an early stage. In this way a change in the trend of economic activity of Dutch companies is available at an early stage. The questions that are asked to the companies relate to production, sales, prices, orders, stocks, investment, competitiveness, economic climate, workforce and the factors limiting production. Data on ISIC division 75 are available from reference period 2014 Q4 onwards.

#### **Bankruptcies**

Data on bankruptcies is available monthly, quarterly and annually at ISIC division 75 level. The current data series on bankruptcies starts from 2009.

#### **National Accounts**

The National Accounts provide information on production, intermediate consumption and value added for ISIC division 75 on veterinary activities. National Accounts tables are available quarterly and annually. The most recent National Accounts annual estimate is 2014. These are partly based on extrapolations of the 2013 accounts, using STS turnover. This though this

consists of very preliminary data. The annual estimates for 2013 are based on among others the SBS statistics of 2013 and are therefore more reliable.

## 4.2 Veterinary activities: current market situation

### Business demography

In the 3rd quarter of 2015 there were 2 175 enterprises, 1 705 of which were personally owned and only 370 privately or publicly quoted joint stock enterprises. Almost all enterprises are small and more than half (1 175) have only one person employed.

### Structural Business Statistics (SBS)

The SBS 2013 statistics are based on a sample of approximately 320 enterprises, all but one in size class small (less than 50 employees). In fact almost two-thirds within the sample had less than 10 employees as this size class dominates the ISIC division 75. The total response rate was approximately 75%.

In table 3 a selection of the data of the most recent published SBS statistics for ISIC division 75 is presented. The data are presented by size class and as totals.

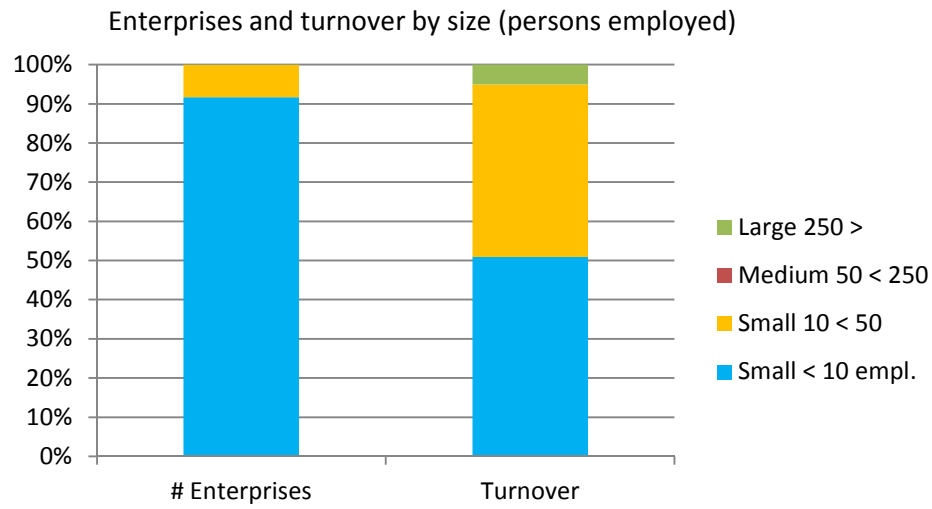
**Table 3 SBS data by size class**

Veterinary activities: ISIC 75 Values x € 1 000	Enterprises					
	Size	Total	% Small	% Medium	% Large	
	Persons employed	All	< 10	10 < 50	50 < 250	250 >
# Enterprises		2 061	1 890	170	0	1
# Persons employed		10 572	6 331	3 568	0	673
# Persons employed in FTE		7 513	4 262	2 675	0	577
Turnover		927 690	472 075	408 538	0	47 077
Value added		463 348	243 249	187 243	0	32 855
Personnel costs		244 258	110 582	102 361	0	31 315
Total costs		730 888	349 745	327 868	0	53 275

Source: Structural Business Statistics, NACE Rev. 2, 2013

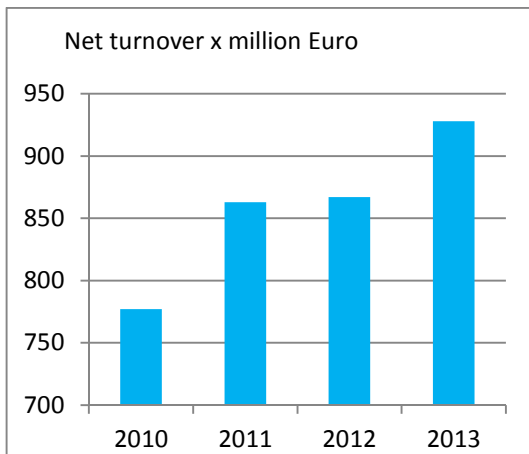
The table above clearly illustrates that the ISIC division 75 is dominated by small enterprises. Structure differ significantly between size classes. The graph underneath demonstrates the squeeze distribution of turnover over size classes.

**Figure 1 Turnover by size class of ISIC division 75**



Source: Statistics Netherlands - SBS + Business demography 2013

**Figure 2 Net turnover of veterinary activities**



Source: SBS, NACE rev. 2, 2013

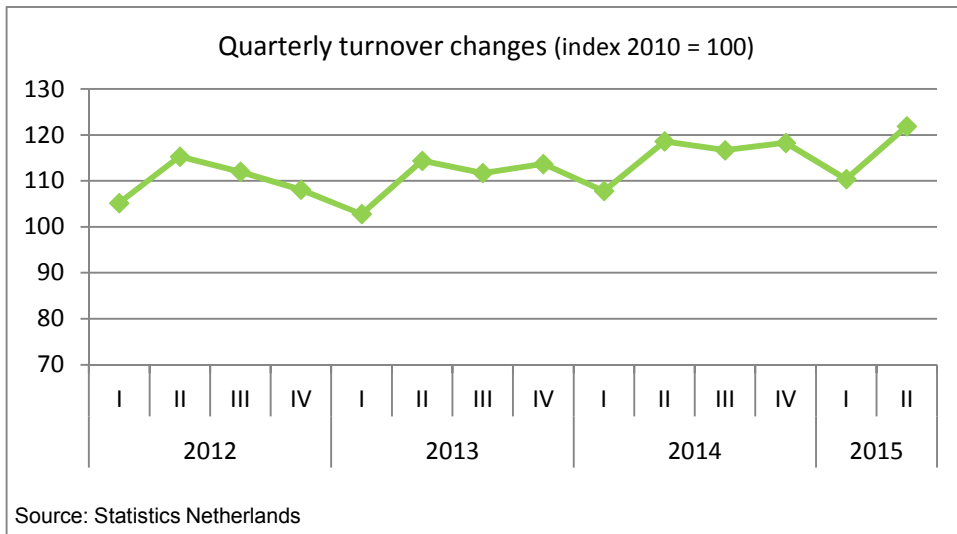
The SBS statistics clearly indicate a substantial growth in turnover in the first years of the current decade.

**Short Term Statistics (STS) Turnover**

Figure 2 contains the index of STS turnover of veterinary activities (ISIC division 75). Over the past few years turnover has gradually grown. Furthermore a clear seasonal pattern can be noticed.



**Figure 3 Turnover change of veterinary activities**

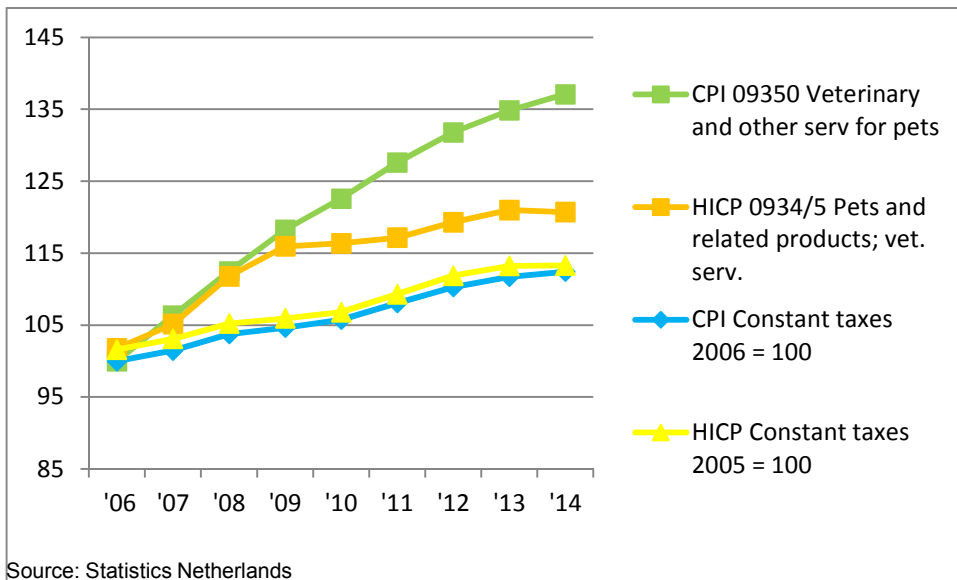


Statistics Netherlands doesn't have a survey to collect volume changes of ISIC division 75. Production volume isn't published separately yet, though for other branches like ISIC division 55 or division 56 we do. The National Accounts approximates volumes by using turnover data combined with deflators.

**Short Term Statistics (STS) Price change**

In the table underneath the best available matching price changes for veterinary activities are shown in terms of CPI and HICP. As a reference the change of the CPI and HICP are shown.

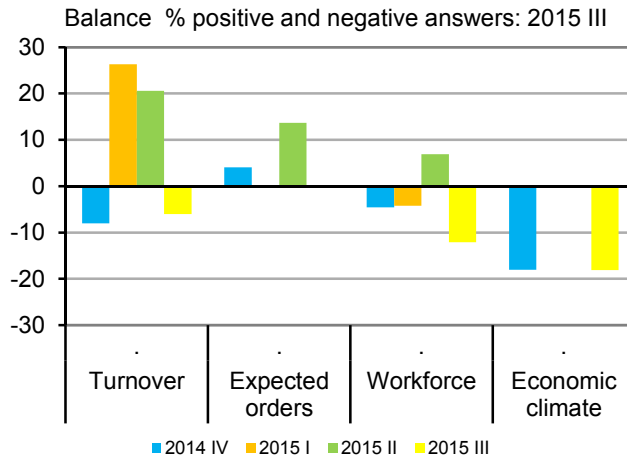
**Figure 4 Price change of veterinary activities and inflation**



**Business Sentiment Survey**

The entire business survey consists of approximately 10 variables, some of which are presented in the table underneath. In this case the expectations for the next quarter are listed, but data on sentiments of the past quarter is available too.

**Figure 5 Business sentiments for veterinary activities**



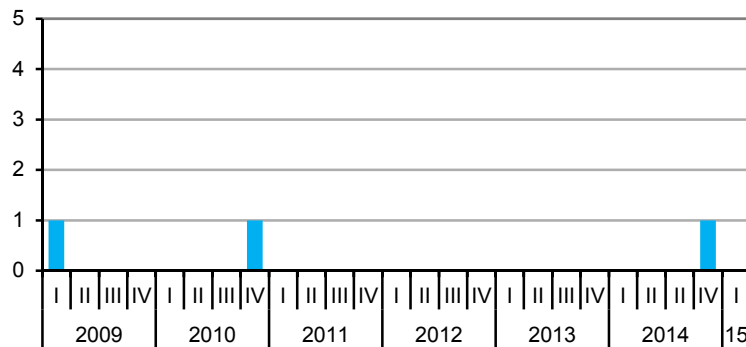
Source: Statistics Netherlands

In the second quarter of 2015 entrepreneurs within ISIC division 75 were rather pessimistic about the forthcoming quarter. The majority is negative about turnover, persons employed and the economic climate. A seasonal pattern may only partly justify these negative sentiments.

**Bankruptcies**

Data on bankruptcies is available for veterinary activities. The number of bankruptcies is rather small given the amount of enterprises in ISIC division 75. In the fourth quarter of 2014 one single company went into liquidation as shown in figure 3. Only three bankruptcies were registered the last 6 years.

**Figure 6 Number of bankruptcies in veterinary activities**



Source: Statistics Netherlands

**National Accounts**

The contribution to GDP of Veterinary activities is rather small in the Netherlands. For 2014 National Accounts estimate production of veterinary services at basis prices at € 651 million and gross value added at € 380 million. The gross value added is approximately 0,07% of total value added.

**Table 4 Production, intermediate consumption and value added ISIC 75**

	Production basic prices mln euro	Intermediate consumption (-) mln euro	Gross value added basic prices mln euro
2010	619	235	384
2011	629	234	395
2012	633	261	372
2013**	632	267	365
2014*	651	270	380

Source National Accounts estimates

\* provisional figures

## 5. Standard classification structure and product detail/levels

In the Netherlands no further statistical breakdown is available for SBS and STS turnover statistics of veterinary activities than ISIC division 75. A distinction between health care services for pet animals, for farm animals and for other veterinary services can therefore not be made.

**Table 5 CPA (2008) breakdown of ISIC division 75**

CPA	Description
75.00.1	Veterinary services
75.00.11	Veterinary services for pet animals
75.00.12	Veterinary services for livestock
75.00.19	Other veterinary services

Within the CPI survey price change is measured for pet animal health care services (similar to CPA 75.00.11) on a B2C basis. No SPPI is available for B2B health care services of farm animals.

## 6. Evaluation of standard vs. definition and market conditions

Interestingly enough ISIC division 75 is excluded from the FRIBS Data requirements Version 6 overview. This holds for both turnover, production volume and SPPI's. As improvements of statistics on veterinary activities (periodicity and SPPI change) are not compulsory other arguments are needed for such improvements. Examples of such arguments are consistency in national output, streamlining statistical systems and processes (avoid exceptions) or a market interest (paying customers) for this type of statistics.

## 7. NA concepts and measurement issues

The National Accounts provide annually and quarterly statistical information on production, intermediate consumption and value added for ISIC division 82 as shown in table underneath. The National Accounts use source statistics like the SBS and STS turnover figures to compile macro figures. The methodology used in source statistics may differ from the concepts used in the National Accounts. Moreover some items, which are not covered by source statistics, are included in National Accounts. Source statistics and National Accounts both have a sort of autonomy. As original levels (f.i. due compilation timing) differ and maintaining growth rates is considered as more important, levels of output, but also other variables may differ.

For example within SBS all revenues (including turnover of trade activities) of ISIC division 75 are included. Within National Accounts only the margins of trade activities are counted as production (in accordance with ESR). For that reason alone turnover within SBS is approximately € 140 million higher than within National Accounts.

Another example is that STS estimates of turnover and production volume focus at accurate estimation of the business cycle within each branch. National Account focus at the correct measurement of the total economy and works more explicitly according to the registered classifications. Therefore within the Netherlands two series of turnover statistics are being produced. The turnover series that is being published differs from the series that is being delivered to the National Accounts department in the way it handles administrative changes such as take overs and ISIC classification changes.

In conclusion the timing, methodology and concepts used in source statistics may differ from the National Accounts practices, thus resulting in differences.

## 8. Turnover/output data method(s) and criteria

In the Netherlands for many branches STS and SBS estimates are interlinked thus enhancing the consistency of both and the quality of National Accounts. The linkage consists of the use of the year total of turnover from the quarterly VAT-data as a boundary for the SBS statistics: the results of the SBS surveys are raised to correspond to the already known turnover total of the VAT-data. Using this constraint the SBS turnover is equal to the STS turnover estimates and the other information on cost and revenue structure will fit without major adjustments.

Furthermore within the Netherlands a dedicated department (ConGO) deals with consistency of data (SBS, STS, FATS, etc.) of complex and large enterprises. Both the source statistics and the National Accounts benefit from this early quest for consistency.

### **SBS details**

The sample size may differ strongly per year as the Netherlands is forced to produce statistics efficiently and with minimal administrative burden. Therefore SBS surveys among small enterprise are mostly held once every few years. In other years STS turnover estimates and the structure of the previous year is used to estimate SBS statistics for the current year.

### STS turnover details

Turnover statistics at Statistics Netherlands are predominantly based on VAT-data. Surveys are being used only for complex and large enterprises. Underneath some process details of the estimation of turnover of veterinary activities are presented to illustrate the type and amount of data used.

**Table 6 Process details turnover statistics**

Turnover process details 2015 Q2	Number
Number of enterprises	2193
Enterprises surveyed	2
Enterprises with VAT records (turnover > 0)	1936
Percentage with Quarter-on-Quarter turnover > 0	89%
Births (both administrative and actual)	99
Deaths (both administrative and actual)	51

The current publication of the ISIC division 75 turnover statistics is based on quarterly Year-on-Year changes. Only real business cycle related changes are taken into consideration; effects of administrative changes (like take-overs or ISIC classification changes) are merely overruled. Working day adjustment analysis didn't have significant results. Regular Year-on-Year changes and working day adjusted Year-on-Year series are therefore identical. In 2016 the ISIC 75 turnover publications might be extended with seasonal corrected Quarter-on-Quarter changes as turnover of ISIC division 75 tends to have a seasonal pattern.

The periodicity of turnover statistics might change after 2018 as a result of the new Eurostat FRIBS programme. FRIBS requires member states to publish both turnover and production volume on a monthly basis for most ISIC divisions. This is a major challenge for Statistics Netherlands as the current process based on quarterly VAT- data is no longer feasible. At the moment research takes place to base estimates on now-casting techniques, the available monthly VAT-data and simulation of monthly turnover surveys among a limited number of crucial enterprises.

Another new change is about experiments with the use of Standard Business Reporting (SBR: system2system communication) in combination with what we call Reference General ledger System (RGS: a sort of bookkeeping Esperanto). The idea is to use massive dumps by bookkeeping or accountant firms of their clients annual business accounts. We expect this to work well for smaller enterprises both for STS and SBS statistics.

### STS price details

In the Netherlands no SPPI data on veterinary activities are available. Instead the CPI is used for deflation purposes of both B2C as B2B.

## 9. Comparability of turnover with price index

At Statistics Netherlands price changes for Veterinary activities are measured within the the consumer price index (CPI) survey only. Veterinary services are not included in the SPPI survey. Therefore only the price change of pet animal health care services is measured and available for the deflation of veterinary activities. Price change of farm animal health care services is not available.

Within the CPI survey 3 types of services are being surveyed once per quarter. The results are published under COICOP 093500 Services for pet animals. With the CPI the weight is 0,016% only.

## 10. Summary

STS turnover is almost exclusively measured by using VAT-data. Besides VAT-data a rather small sample survey is being used. For SBS statistics a combination of a sample survey and a census (large size classes) is being used. The STS and SBS figures are published at ISIC division 75 level. This information is also used on a quarterly or annually basis by the National Accounts to calculate volume change. A known issue is the lack of B2B price change for veterinary activities. For B2C and B2B price change the CPI is available. Differences with National Accounts will remain due to among other different concepts.

It is not likely that statistics of ISIC division 75 will be elaborated further (unless for paying clients) as there is no obligation from the future Eurostat FRIBS programme for STS statistics and because the contribution to GDP is rather small.

Some new developments take place from which the SBS and or STS statistics may benefit. Examples are the interlinked and consistent methodology for STS and SBS turnover and the future use of system2system dumps of annual accounts.