Health Statistics User Survey 2016

Tervise Arengu Instituut
National Institute for Health Development

HEALTH STATISTICS USER SURVEY 2016

National Institute for Health Development
Department of Health Statistics

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INTRODUCTION

The Health Statistics User Survey was carried out by the Department of Health Statistics of National Institute for Health Development. The survey was aimed at people who have used or needed to acquire health statistics. The objective of the survey was to acquire knowledge on the use of health statistics to improve the accessibility of necessary health statistics and to organise health statistics work process. Respondents of the survey were anonymous. The questions were about health statistics usage patterns and assessment of the health statistics publishing deadlines, level of detail and reliability.

1. METHOD

1.1 Procedure
The survey was conducted in an electronic format. The survey consisted of 18 questions, most of which were multiple choice questions (see Annex 1). The number of questions depended on the answers given to questions (some answers led to additional questions, others did not). On average, it took about 11 minutes to fill in the questionnaire. The fastest respondent filled in the questionnaire in 4 minutes and the longest period that a respondent kept the questionnaire open was 1 hour and 22 minutes. The survey period lasted from 10 March to 11 April 2016.

1.2 Sampling and response rate
The invitation to take part in the survey was sent to 907 e-mail addresses. The people invited to take part were subscribers of the health statistics newsletter, employees of county or local governments, members of the Parliament and contacts of the Department of Health Statistics in ministries, employees of health care providers, employees of institutions under the administration of the Ministry of Social Affairs, members of trade associations of health care personnel, employees of insurance companies, cooperation partners in universities, media professionals working on health topics, and people who had conducted health statistics inquiries during the past year. A total of 658 people[1] viewed the questionnaire and 577 of them answered at least one question. The number of questionnaires filled in completely was 81. The survey was available both in Estonian and English. In English, 61 respondents began to fill in the questionnaire, but none of them filled it completely. There were 81 completely filled questionnaires, which makes up 8.4% of the 907 e-mail addresses.

1.3 Groups of respondents
In 2016, the distribution of respondents in groups was relatively even: 1/5 of respondents were employees of health care providers, 1/5 were employees of county or local governments, 1/5 were employees of state authorities, 1/5 were employees of scientific research, development or educational institutions, and the last 1/5 was made up of other user groups. It is noteworthy that 7.4% of respondents were pupils or university students (Figure 1).

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[1] The number of respondents was calculated based on IP addresses that were used to view the questionnaire – visits from the same IP address counted as one visit.
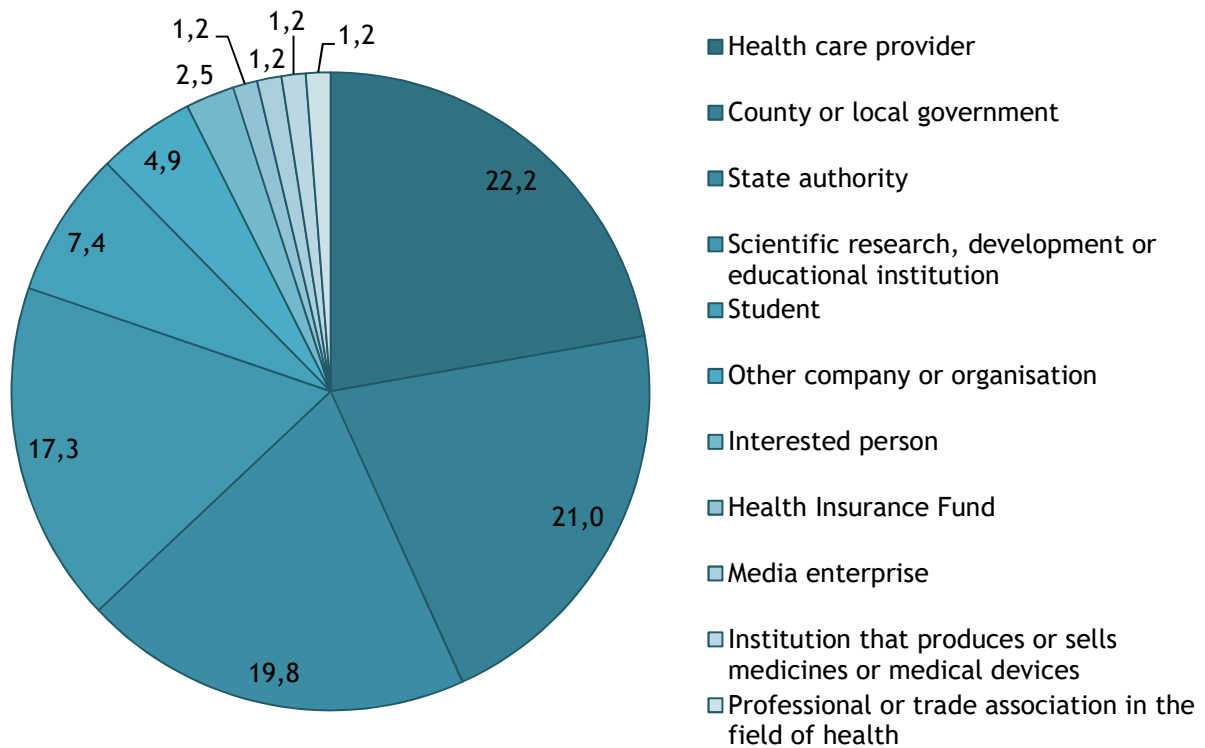
Figure 1. **Distribution of user survey respondents among different user groups – percentage of all respondents (N = 81)**

If we compare this survey respondents to the respondents involved in the Health Statistics User Survey 2013, it becomes evident that the share of county or local governments' employees has decreased slightly (34.7% in 2013, 21% in 2016), the share of employees of health care providers has stayed on the same level (21.1% in 2013, 22.2% in 2016). When compared to 2013, percentages increased in terms of scientific research, development or educational institutions' employees (13.7% in 2013, 17.3% in 2016) and state authorities' employees (15.8% in 2013, 19.8% in 2016).

2. RESULTS

2.1. The need for health statistics information sources

Among health statistics information sources, the Health Statistics and Health Research Database is needed the most (over 80% of respondents). Also in high demand are publications and analyses (70% of respondents marked those as needed) and over 60% of respondents also need metadata, classifications and the health statistics dictionary. Less needed are health statistics news on social media (Facebook, Twitter) and the health statistics release calendar also has fewer users. The number of people who were not aware of the health statistics newsletter was relatively high (a reason for this could be that it is the newest news platform of health statistics), the same applies to the health statistics release calendar. Most well-known were health statistics press releases and the Health Statistics and Health Research Database (Figure 2).
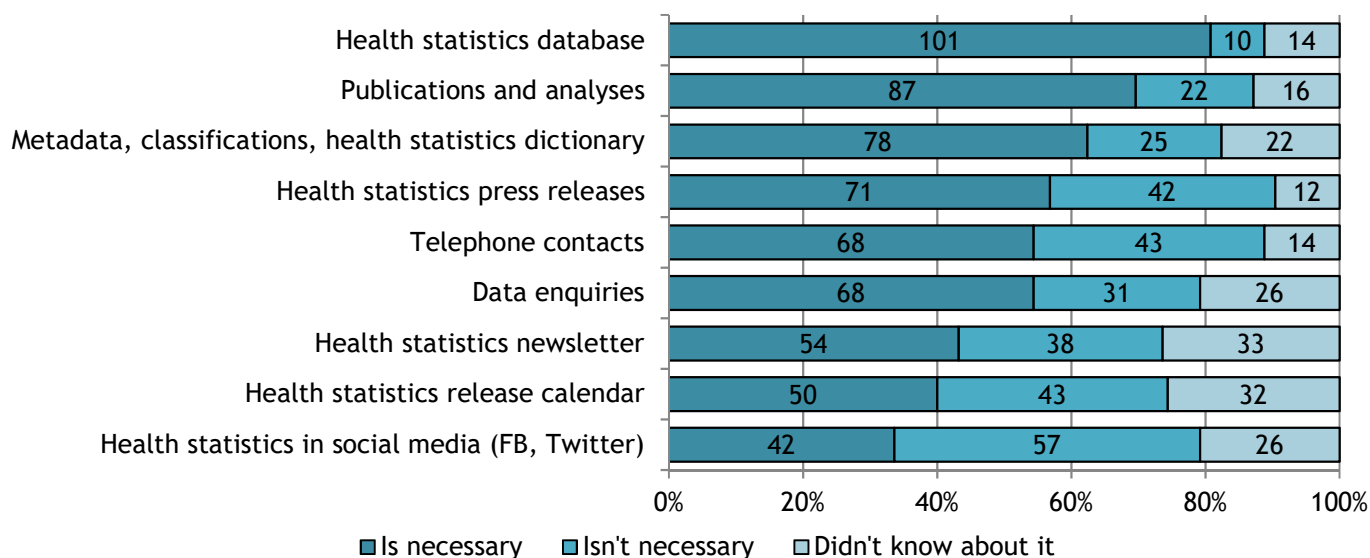
Figure 2. **Need for health statistics information sources (N = 125)**

The following table outlines the need for health statistics information sources by user groups (Table 1). The table shows that the vast majority of government authorities' employees needs the health statistics database and metadata, employees of health care providers also find telephone contacts to be important. Employees of county or local governments prefer social media sources more than other groups; at the same time, they use publications and analyses less than other groups.

Table 1. **Need for health statistics information sources – percentage of respondents in the relevant user group who answered "is necessary"**

	Employee of a health care provider	Employee of a county or local government	Employee of a state authority	Employee of a scientific research, development or educational institution	Other user groups
Health Statistics and Health Research Database	83.3	76.5	93.8	92.9	75.0
Publications and analyses	61.1	58.8	87.5	85.7	75.0
Health statistics newsletter	66.7	64.7	50.0	42.9	25.0
Health statistics press releases	38.9	70.6	31.3	78.6	62.5
Health statistics in social media	11.1	35.3	25.0	7.1	62.5
Health statistics release calendar	61.1	35.3	50.0	50.0	43.8
Data enquiries	61.1	47.1	56.3	42.9	68.8
Metadata, classifications, health statistics dictionary	66.7	41.2	93.8	71.4	68.8
Telephone contacts	72.2	52.9	56.3	64.3	43.8

2.2 General assessment of health statistics information sources

69.2% of respondents answered that it is easy to find health statistics and 57.9% stated that it is easy to find data from the health statistics database. 65.4% of respondents found that health statistics are provided in a clear and easily comprehensible way. Most respondents had not used custom orders or data enquiries; however, those who had, found that the speed of replies was sufficient. Two thirds of people who had used additional data (metadata, classifications, health statistics dictionary) found that the information was easily accessible, sufficient, clear and adequately detailed (Figure 3).
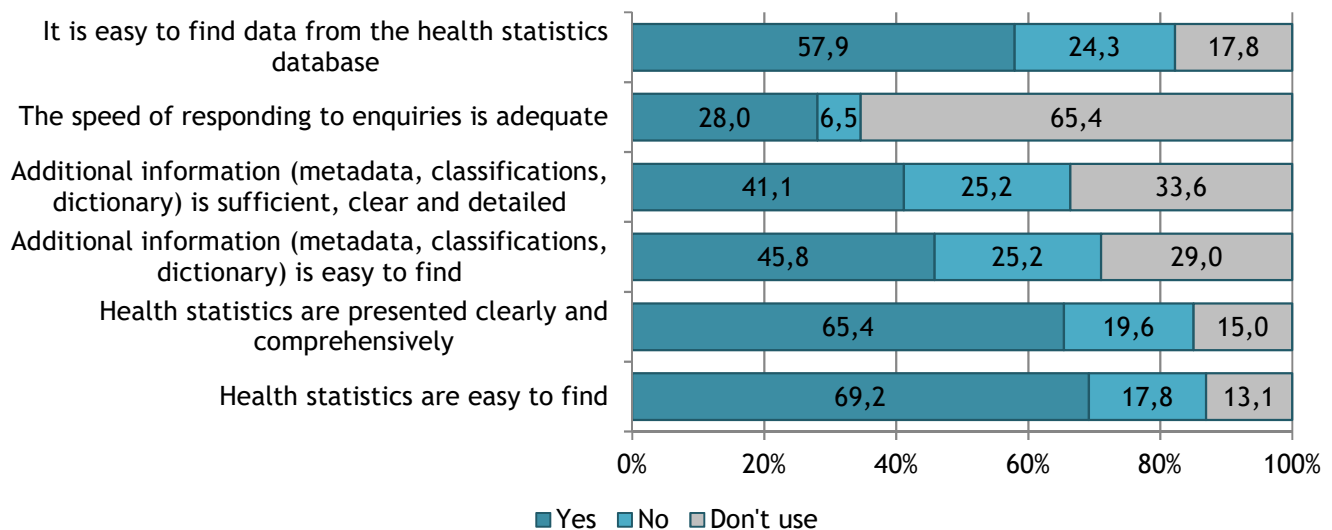
Figure 3. **Assessment of health statistics information sources**

2.3 Use of health statistics publications

20.2% of respondents of the Health Statistics User Survey had never used a single health statistics publication of the NIHD (National Institute for Health Development). Among statistics compilations, "Health Statistics in Estonia and Europe" was the most popular (used by 68.9% of respondents) and the most popular analysis was "Health Care Personnel" (used by 44.5% of respondents). Over 30% of respondents had also used analyses concerning health expenditure, outpatient visits and data of the Health Information System. The burden of disease analysis was used the least, which may be due to the reason that it was first published at the end of 2015 (Figure 4).
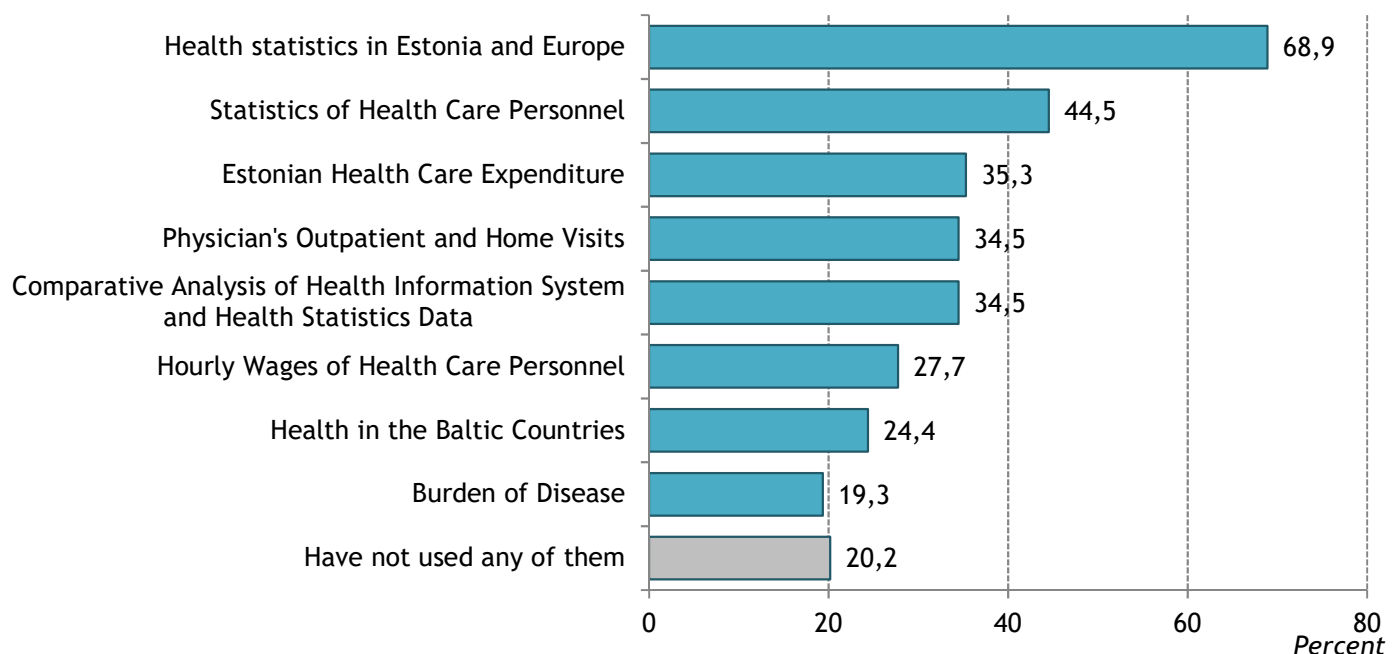

Figure 4. **Use of health statistics publications, percentage of people who had used publications among respondents (N = 119)**

2.4 Purposes of using health statistics data

Answers to the question "For what purposes do you use health statistics data?" were distributed in a way that the most common purpose was drafting statistical reports, analyses, overviews or reviews (54.8% of

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respondents); however, health statistics data was often also used for self-education (47.8% of respondents) (Figure 5). Several options could be selected as answers under this question, i.e. one respondent could mark several fields.
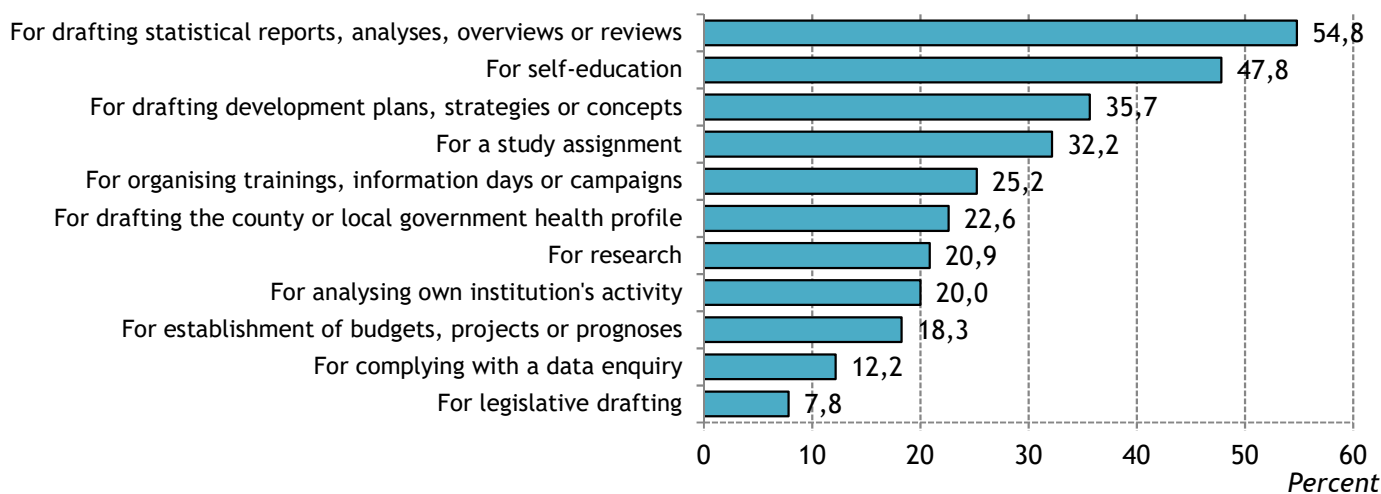
Purpose	Percent
For drafting statistical reports, analyses, overviews or reviews	54,8
For self-education	47,8
For drafting development plans, strategies or concepts	35,7
For a study assignment	32,2
For organising trainings, information days or campaigns	25,2
For drafting the county or local government health profile	22,6
For research	20,9
For analysing own institution's activity	20,0
For establishment of budgets, projects or prognoses	18,3
For complying with a data enquiry	12,2
For legislative drafting	7,8

Figure 5. **Purposes of using health statistics data, percentage of respondents (N = 115)**

The purposes for which users in different user groups use health statistics are displayed in Table 2 (only major user groups are listed). The option "for some other purpose" was chosen by six people. The answer "for gaining general knowledge" was grouped together with self-education and "for news and articles on specific topics" were grouped together with analyses and reports. "For presentations at international conferences and seminars" was grouped together with "for organising trainings, information days or campaigns". Three people clarified that they do not use health statistics at all.

Table 2. **Purposes of using health statistics data across various user groups, % (N = 114)**

	Employee of a health care provider	Employee of a county or local government	Employee of a state authority	Employee of a scientific research, development or educational institution	Other user groups
For drafting statistical reports, analyses, overviews or reviews	50.0	47.1	75.0	57.1	50.0
For drafting development plans, strategies or concepts	38.9	41.2	50.0	28.6	25.0
For establishment of budgets, projects or prognoses	33.3	17.6	0.0	14.3	25.0
For drafting the county or local government health profile	27.8	70.6	6.3	7.1	6.3
For organising trainings, information days or campaigns	16.7	29.4	25.0	35.7	25.0
For analysing own institution's activity	50.0	17.6	12.5	7.1	18.8
For complying with a data enquiry	11.1	5.9	25.0	7.1	6.3
For legislative drafting	0.0	11.8	18.8	7.1	6.3
For research	11.1	5.9	18.8	42.9	25.0
For a study assignment	22.2	17.6	18.8	42.9	56.3
For self-education	44.4	35.3	56.3	35.7	37.5
For some other purpose	5.6	5.9	0.0	0.0	25.0

When comparing the purposes of using health statistics data in 2007, 2010, 2013 and 2016 (Figure 6), it becomes evident that one of the most important purposes of using health statistics data in 2016, 2013 and 2010 was self-education (48% of respondents in 2016, 39% in 2013 and 35% in 2010). In 2016 and 2010, there were a lot of people (55% and 65% of respondents respectively) who replied that they use data for drafting statistical reports, analyses, overviews or reviews; the percentage of people using data for research was also higher. The reason for this may be that the percentage of employees of scientific research, development or educational institutions was also higher among the respondents of 2010. In conclusion, it can be said that even though the use of data for self-education and study assignments has increased slightly, the purposes of using health statistics data have generally remained the same over the years.
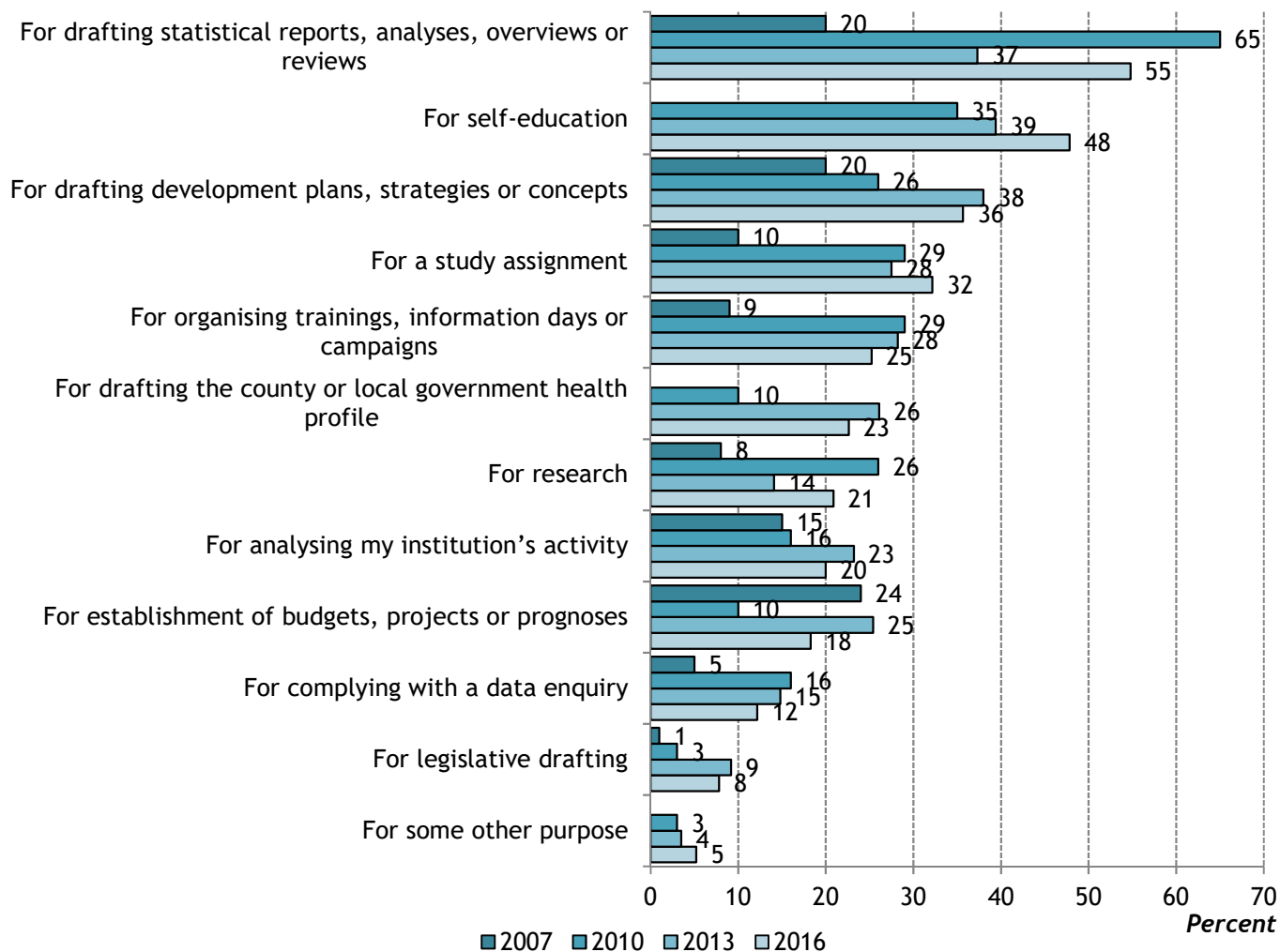

Figure 6. **Purposes for using health statistics data in 2007, 2010, 2013 and 2016**

2.5 Frequency of needing health statistics data

49.6% of respondents need health statistics data less than once a month and 22.1% of respondents need health statistics data once a month, on average. Very frequent users of health statistics data (about once a week) made up 11.5% of respondents and people who were looking for health statistics for the first time made up 16.8% of respondents (Figure 7).
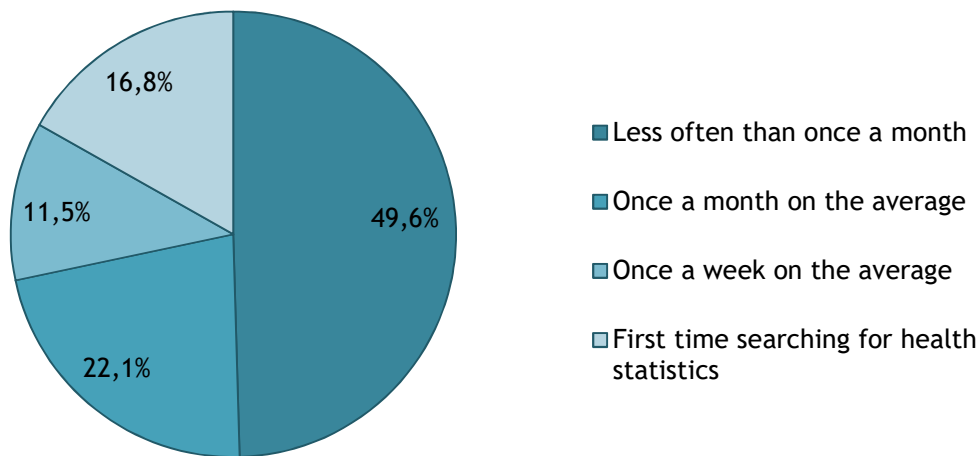
Figure 7. **Frequency of needing health statistics data, percentage of respondents (N = 113)**

Figure 8 outlines the frequency at which various user groups need health statistics data. Employees of government authorities and scientific research, development and educational institutions need health statistics data most often.
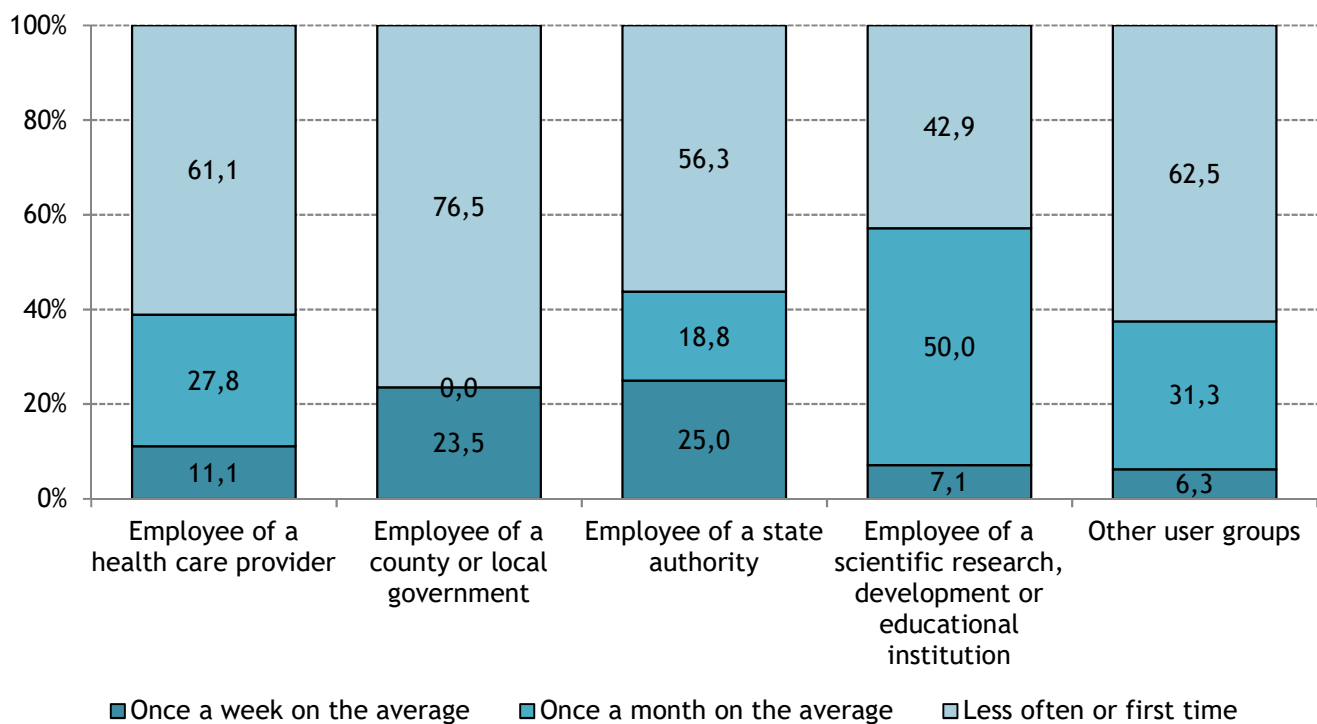

Figure 8. **Frequency of needing health statistics data (% of respondents) by user group (N = 113)**

2.6 What kind of health statistics data and analyses are needed

In 2016, participants of the user survey were asked to provide a free form list of what kind of health statistics data and/or analyses they have needed or still need. This includes those fields of data on which additional data is not requested.

Various categories were mentioned, among those the following were pointed out most often:

- Morbidity data
- Data for health profiles

- Health and health behaviour surveys
- Population indicators – births, deaths, abortions
- Health care services, health care personnel
- Economic data

More specific wishes included:
- Field-specific comparisons with other countries. Baltic data of 2013 were great in this regard! There could be more analogous data and it could be presented in a more field-specific manner.
- Number of specialist doctors, visits, wages – by fields of activity, counties and service providers.
- Screening programmes
- Hospital care with more detailed diagnoses
- Statistics on causes of death could be provided quicker.
- The current method of grouping by age often makes it impossible to use NIHD data as comparison data.
- How many people with allergies are there in Estonia
- HIV status of pregnant women
- Postpartum period, medical examination of newborns, postpartum examination of women
- I could use data on telephone contacts, e-mail contacts of the outpatient visits of family medicine.
- Expenditure on medical devices
- How many people in Estonia practice recreational sports
- More detailed surveys on health behaviour are necessary.
- A survey on the health behaviour of children and the youth; the survey on adults' health behaviour could also be more detailed
- Data related to youth behaviour.
- The effect of sugar, salt, fats, caffeine etc. consumption on health. Whether or not and in what amounts are those foods harmful to health
- Comparison of local government data on the county and state level is needed for health profiles, but I haven't found information of this kind.
- In order to compile health profiles, it is necessary to have data on the level of local government; however, there is usually no such data and county data is used, which in turn makes the compilation of health profiles pointless

Need for Hospital Masterplan hospitals' data, detailed data and other proposals:
- As Hospital Masterplan hospitals service basically the entire population of Estonia (e.g. Tartu University Hospital services the entire Southern Estonia), then information concerning the health care services provided at those hospitals could also be inhabitant-specific (e.g. morbidity based on the person's place of residence, not based on service provider' location).
- We would like to see the data based on a patient's place of residence.
- We would like to see people's actual workloads across fields of action (personal data). This data could even be coded, as disclosing names is probably not wise. So the disclosed information could be, e.g. anaesthesiologist X56789 works 30 hours per months in one hospital, 90 hours in another hospital and 200 in a third hospital. The name linked with the code could be disclosed only with permission from the person.
- Quality data
- The work of nurses, midwives, physiotherapists could be listed separately
- It would be good to know what the hospitals' own prognoses are for how services in demand that the Estonian Health Insurance Fund is unable to cover.
- How many people receive health services (and what kind of services) from abroad? Who reimburses?

- Public procurement purchases in various categories
- Hospital Masterplan hospitals cover part of the total volume of services

General proposals:
- Time series should be reconciled when classifications change, e.g. total health expenditures cannot be compared at this time
- The mortality database needs to be reorganised and the list of submitted causes of death should be reviewed
- Due to the fact that regional hospitals are not 100% obligated to change the minimum wage based on the collective agreement for the entire personnel at the start of the year (in most cases, the contractual salaries of physicians exceed the minimum based on the collective agreement), it may be too early to forward data on wages in March. As a rule, the average total wages of the III–IV quarter are higher. NB! Only applies in the sample of physicians. In the case of the nursing and care workers, the March comparison is adequate.
- Detailed statistics by diagnoses is necessary, grouped statistics are of no help. Emergency health care, emergency rooms, etc. have been duplicated, are complex or non-existent
- Statistical databases are very important and necessary; often these only scrape the surface and more details are needed in order to access necessary information. Nevertheless, it's better to have the current system than to have nothing at all.

2.7 Satisfaction with the publication deadlines, level of detail and reliability of health statistics

The satisfaction of health statistics users with publication deadlines by topic was also studied. The satisfaction with the publication deadlines was rather high – 95% of respondents were satisfied with the deadlines. The highest satisfaction level occurred in terms of deadlines of publishing data on hospital beds (96.9%) and the lowest satisfaction level concerned the publication deadlines of data on morbidity (80.4% of respondents).

When it comes to the health statistics' level of detail, the highest satisfaction level concerned hospital bed statistics (92.3% of respondents found this data to be sufficiently detailed) and the satisfaction level concerning the level of detail of economic activities of health care providers was also relatively high (89.3%). The lowest level of satisfaction concerning the level of detail occurred in relation to reasons for day care and hospital care, and data of outpatient visits (67.6% and 68.3% of respondents respectively).

Statistics on births and abortions was considered to be the most reliable (98.1% of respondents found it to be reliable or very reliable). 93.8% of respondents also found data concerning tuberculosis, hospital beds and health behaviour surveys to be reliable.

Assessments on the publishing deadlines, level of detail and reliability of health statistics have been provided in Figure 9.
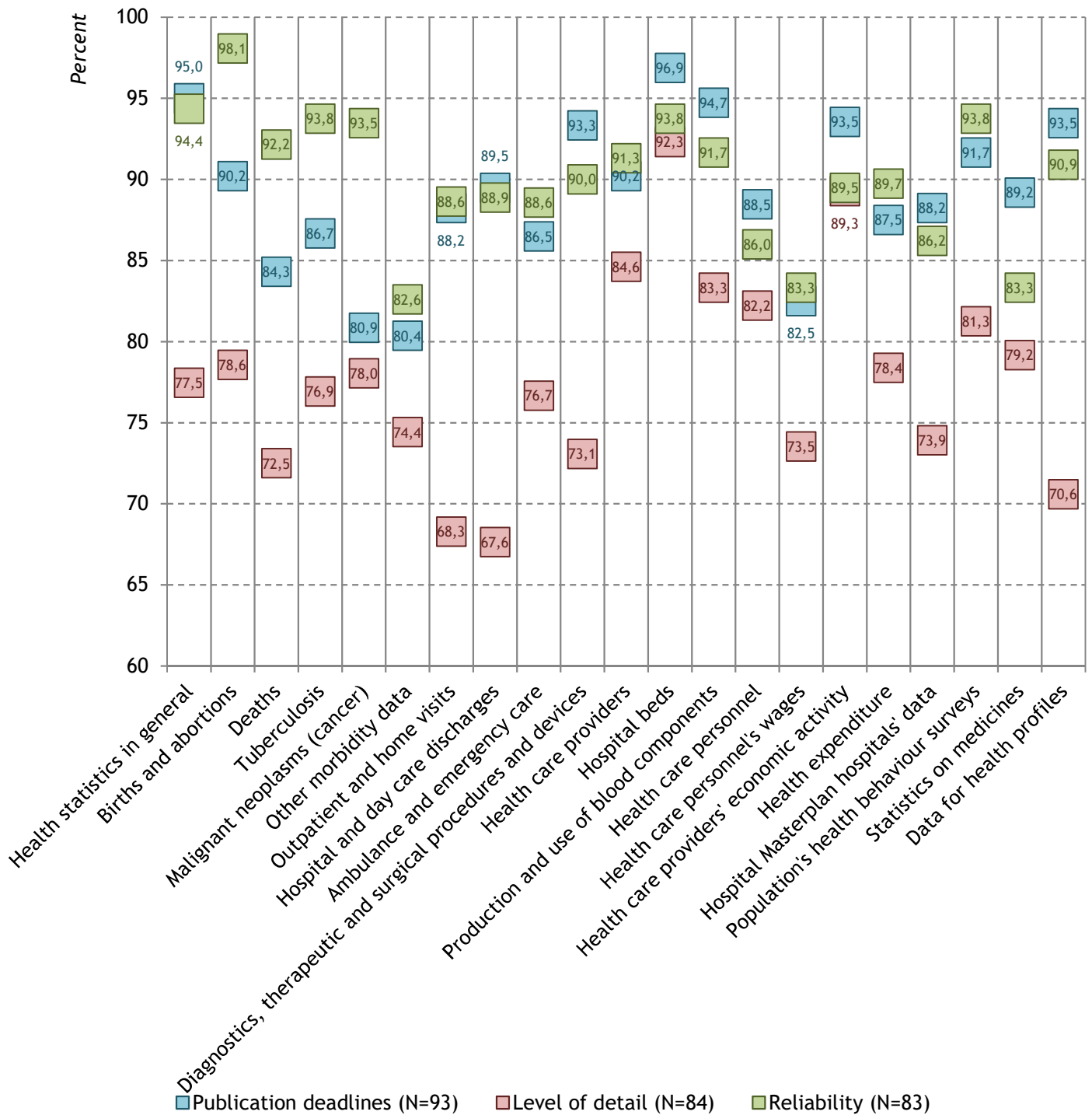
Figure 9. Satisfaction with publication deadlines (N = 93), level of detail (N = 84) and reliability (N = 83) of health statistics. The share of people who answered that publication deadlines are suitable, level of detail is sufficient and data is reliable, from among those who have used the aforementioned data

Reviewing assessments on the publishing deadlines, level of detail and reliability of health statistics by user group (four main user groups were included in the analysis), it becomes evident that all user groups find the publishing deadlines of health statistics to be suitable and health statistics to be reliable. The lowest level of satisfaction concerns the health statistics' level of detail, incl. the smallest percentage of users who are satisfied with this is among the "other" user group (Figure 10).
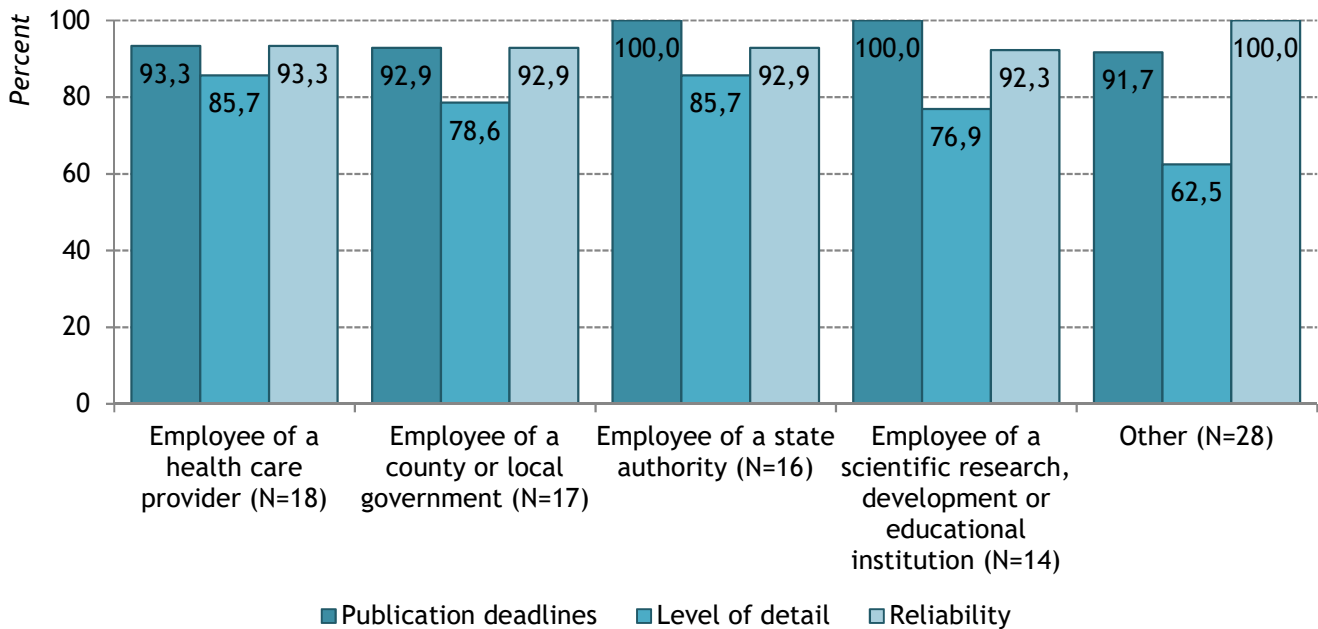
Figure 10. **Assessments on the publishing deadlines, level of detail and reliability of "Health statistics in general" in main user groups. The share of people who answered that publication deadlines are suitable, level of detail is sufficient and data is reliable, from among those who have used the aforementioned data**

2.8 Where did respondents find information about the database?

The main information source concerning the Health Statistics and Health Research Database was the website of the NIHD (39.8% of respondents found information there); however, information was also found from media (8.4%) or from somewhere else (7.2%). 6% of participants had received relevant information from NIHD events (incl. informational days of health statistics) (Figure 11).
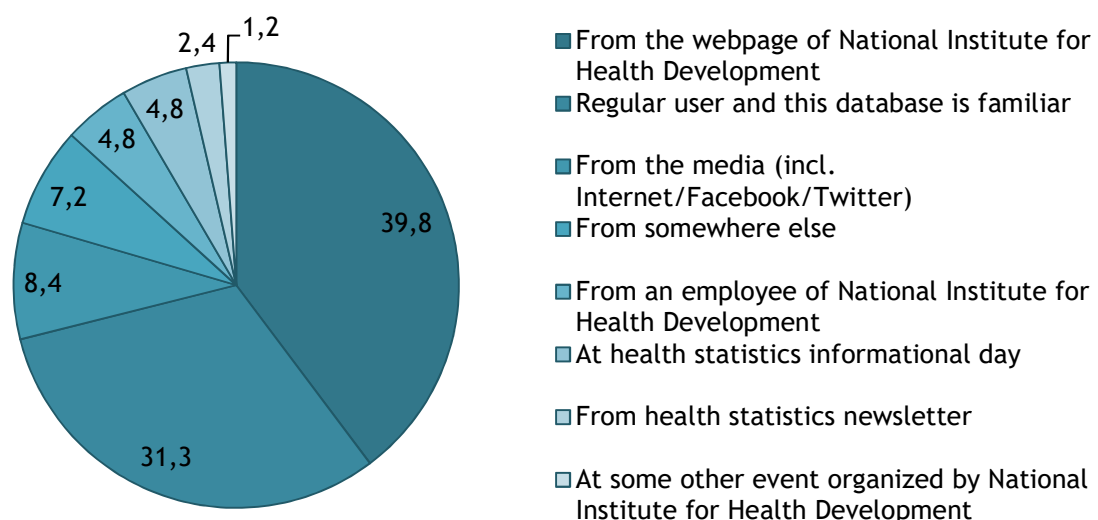

Figure 11. **Information sources regarding the Health Statistics and Health Research Database (N = 83)**

In addition to the aforementioned channels and events, the following information sources were also mentioned:
- Estonian Health Insurance Fund
- Tallinn University

- University of Tartu
- "From all of the aforementioned sources."

It is difficult to compare those percentages with the results of the user survey conducted in 2013, as 2016 was the first year when we also provided the option of "I'm a regular user" among the answers. This is probably why the other percentages are lower. The NIHD website has been the main source of information concerning the database according to previous surveys as well; information is also received from the media, NIHD employees and events.

2.9 Keeping track of the health statistics release calendar

28% of respondents keep track of the release calendar (N = 82). In comparison, the share of people keeping track of the release calendar according to the user survey of 2013 was 22.7%.

Figure 12 shows the share of people keeping track of the release calendar in various user groups (only major user groups are listed).
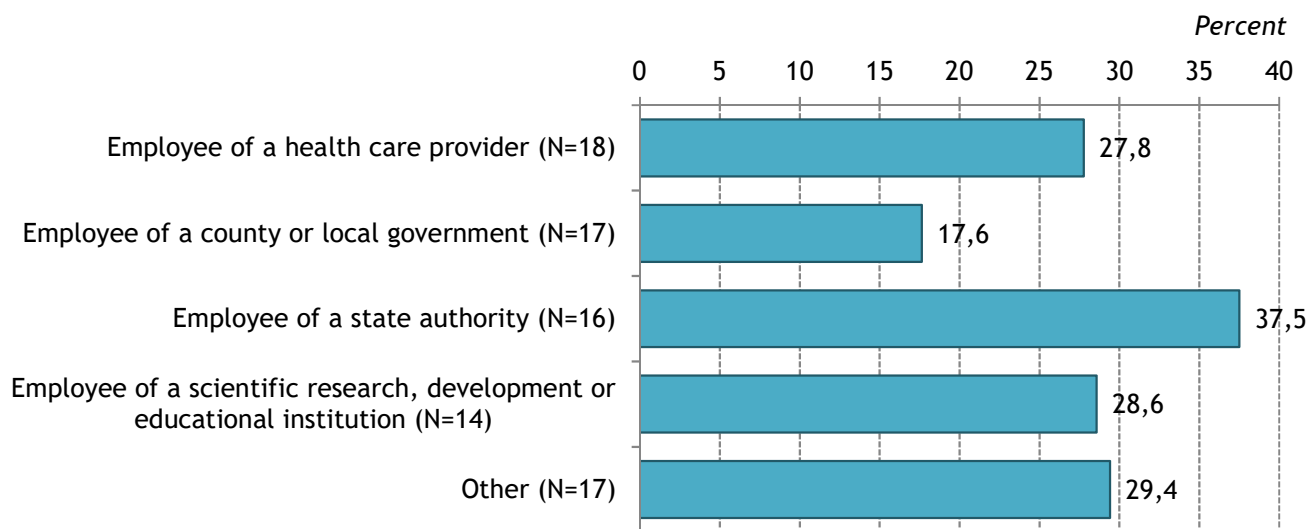

Figure 12. **Percentage of people keeping track of the release calendar in main user groups, % (N = 82)**

3. SUMMARY

The number of participants in this user survey was slightly lower than that of the previous user survey; however, it included sufficient numbers of data users from various fields. The largest portion of participants of the survey was made up of employees of health care providers, county or local governments, and scientific research, development or educational institutions.

Among the information sources of health statistics, the most needed were the Health Statistics and Health Research Database, publications and analyses, metadata and health statistics press releases. The least needed was the health statistics news on social media. The publication "Health Statistics in Estonia and Europe" and the health care personnel analysis were used the most often. Over 30% of respondents had also used analyses concerning health expenditure, outpatient visits and Health Information System data. 20% of respondents had not used health statistics analyses at all. Health statistics data was most often used for drafting statistical reports, analyses, overviews or reviews (55% of respondents), but also for self-education, study assignments, and drafting development plans, strategies or concepts. 11.5% of respondents needs health statistics data about once a week, 22.1% of respondents needs it once a month and the rest less frequently. 69.2% of respondents finds that it is easy to find health statistics and 65.4% of respondents finds that health statistics are presented in a clear and comprehensive manner. People who use health statistics often were most prevalent among employees of county or local governments

and state authorities. All user groups found the publishing deadlines of health statistics to be adequate and the reliability of health statistics to be high. Respondents were most satisfied with publication deadlines and level of detail of data on hospital beds. The statistics concerning births and abortions were seen as the most reliable statistics. Over 90% of respondents also found data concerning tuberculosis, hospital beds and health behaviour surveys to be reliable. 31.3% of respondents were regular users of the health statistics and health research database. 39.8% of respondents got information on the database from the NIHD website; fewer respondents got information from the media and from somewhere else. 28% of respondents keep track of the release calendar.

4. CONCLUSIONS

- Over time, a group of regular users of the Health Statistics and Health Research Database has formed; these users know what kind of data they can find in the database.
- The numbers of people keeping track of the release calendar has increased slightly, but it is still lower than it could be (i.e. the number of people who need health statistics at least once a month exceeds that of people who keep track of the release calendar); therefore, it is necessary to conduct further awareness-raising activities.
- The number of people who were not aware of the health statistics newsletter was relatively high, so this health statistics information source should be advertised more.
- This user survey format was not suitable for use with people who use the English version of the database; therefore, that target group should be involved in some other way, incl. the introduction of the English version of the NIHD website at various international events. Additionally, the English version for the next survey should be less thorough than the rest, and more attention ought to be paid to the potential interests of English-speaking users.
- To ensure, evidence-based health promotion, county and local governments need county/local government data, so work needs to continue in order to collect and make that kind of data available.
- The data is used for development plans/strategies; therefore, it is necessary to work towards ensuring that the necessary indicators are easily accessible in the suitable format.
- General feedback to the health statistics has been positive and although there were some complaints concerning the level of detail of statistics, there were also several respondents who had found all the data needed for their work from the health statistics database and publications. Additionally, several people wished good luck and expressed their gratitude for the collection and publishing of the data.

We would like to thank all respondents for cooperation and constructive feedback.

Department of Health Statistics of National Institute for Health Development

Health and health care statistics:

- **Health statistics and health research database**
  http://www.tai.ee/tstua
- **Website of Health Statistics Department of National Institute for Health Development**
  http://www.tai.ee/en/r-and-d/health-statistics/activities
- **Dataquery to National Institute for Health Development**
  tai@tai.ee
- **Database of Statistics Estonia**
  http://www.stat.ee/en
- **Statistics of European Union**
  http://ec.europa.eu/eurostat
- **European health for all database (HFA-DB)**
  http://data.euro.who.int/hfadb/
- **OECD's statistical databases (OECD.Stat)**
  http://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT