STATISTICS DENMARK

Documentation of statistics for Elderly - Indicators 2017

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1 Introduction

In connection with the arrangement about the economy for 2006 of the municipalities a cross-public cooperation started, which has to ensure a coherent documentation on important areas of municipal services. Firstly, the government and Local Government Denmark have made an agreement about national documentation on the elderly area. Statistics Denmark is responsible for the composition and publication of the statistics. Importance has been attached to secure a more valid documentation on the elderly area than before. This is achieved by collecting the information directly from the municipalities' care systems (in Danish, EOJ), which is currently updated in connection with the case handling in the municipalities.

2 Statistical presentation

The municipal service indicators on the elderly area consist of 19 indicators so far, which have been developed in cooperation with Local Government Denmark and the Ministry for Social Affairs. The indicators consist of referral and provided home care, home nursing, rehabilitation, preventative home visits, nursing homes, qualitative indicators, clinical pathways and readmissions and ratio of direct contact. Primarily, the indicators are directed at the elderly area, but home care, home nursing, rehabilitation and nursing homes also includes data for citizens less than 67.

2.1 Data description

Referred home care: Consist of indicators on the number of referral hours of consistent home care and the number of recipients of personal help and practical care in own home and in nursing homes/nursing dwellings, number of recipients of home care who change contractor and first-time referred recipients who use private contractor. The indicators are based on the municipalities' referrals concerning home care and consist of the referral help offered by the municipalitues under the law of Social Service section 83. The officer from the municipality pays the citizen a visit to clarify the extent of care services needed. When the officer has made an assessment of the services needed, a decision about the extent of help will be made on the basis of the law, the quality standard in the municipality and a concrete individual assessment. The statistics illustrate the number of people who are referred to home care and the number of average weekly hours in a given month, to which the referral concerns. The indicators can be divided into the services: personal care and practical help and type of supplier.

Provided home care: Consist of the indicators on the number of provided hours of permanent home care and number of recipients of personal care and practical help in own home and number of home visits that are implemented as planned. The indicator is based on the reported start and stop hours for each visit, and the indicator consist of the permanent personal help the citizen is provided from the municipality under the Law of Social Service section 83. Each time the citizen is paid a visit from a home help, the visit is reported in the hardware. For some municipalities it is the planned start and stop hours for the visit that is reported and for others it is the actual provided hours. This depends on which IT supplier the municipality uses. The provided home care is based on these records. The indicators can be divided into the services: personal care and practical help and type of supplier.

Home nursing: Includes all services on delivered home nursing visits. The indicator highlights the number of people who have received home nursing according to §138 of the Health Act. For some municipalities, the planned home nursing services are reported and for other municipalities it is the actual services reported. This depends on which IT provider municipalities have.

Nursing homes and average waiting time for nursing homes: Consist of indicators about the average waiting time for nursing homes/nursing dwellings and the number of elderly who use

free choice of dwelling for nursing homes/nursing dwellings and who either wish to use the free choice of dwelling or is referred to the general waiting list. The general waiting list consists of citizens with no specific wishes expressed in accordance with the municipalities' free choice of dwelling. Furthermore, the average waiting time in days is illustrated. Elderly who choose the free choice are not included in the calculation of waiting time. This is also the case for younger people with varying reduced physical and mental capacity.

Preventative home visits: Consists of the indicator preventative home visits. The indicator illustrates the number of recipients of preventative home visits and number of persons who have received a visit under the Law of Social Service section 79a, where the municipality as a minimum must offer citizens aged 75 and older a visit.

Training and Maintenance Training: Consist of the indicator "elderly recipients of rehabilitation and maintenance rehabilitation". The indicator illustrates recipients who have received rehabilitation and/or maintenance rehabilitation under the Law of Social Service section 86, part 1 and 2. Thus, the indicator does not include rehabilitation under the Law of Health section 140.

** Rehabilitation **: Includes the Rehabilitation Indicator. The indicator shows the number of persons who have received rehabilitation under the Law of Social Service section 83a, where the municipality must offer a time-limited rehabilitation course for persons with impaired functioning if assessed the ability to function can be improved and thus reduce the need for help.

Clinical pathways and readmissions: Consist of the indicators clinical pathways and readmissions plus discharges and length of stay for persons aged 67 and older at selected groups of diagnoses.

Ratio of Direct Contact: The ratio of direct contact is a term for the share of the total paid time for employees in the home help system that is spent in the citizen's home. The ratio only concerns the time that is used in connection with the service included in the free choice of supplier. Municipalities are recommended to use the ratio-model as a method to calculate the ratio. Yet, the Ministry of Social Affairs has changed the guide to calculat the ratio of Direct Contact, in 2010. The area is still debated and until the subject is clarified, it has been decided not to publish the ratio.

Quality of service: Every second year the Ministry of Social Affairs is responsible for making a qualitative survey. The qualitative service indicators include five indicators about user satisfaction. The survey is a sample, which is representative to the share of home care recipients age 67 and older.

2.2 Classification system

Municipality, region and total country. If many municipalities lack to report, the data for the municipalities is not summarized to region, and therefore the indicator for the region is not calculated. This concerns these indicators: *preventative home visits*, *referral hours at nursing homes*, *training*, *Home nursing* and *rehabilitation*. Furthermore, figures are not calculated for regions and the whole country for these indicators: *home visits implemented as planned* and *free choice of dwelling*. As regard *ratio of direct contact* data has not been received at regional level. There are data for region and the whole country for *quality of service*.

2.3 Sector coverage

Covers the municipal sector.

2.4 Statistical concepts and definitions

Share: First-time referred that choose a private home help, is stated as share in percent of all first-time referred. If a citizen both gets private and municipal help, the citizens are calculated under private home care. Recipients that choose private home care is stated in percent of all recipients. At nursing home/nursing dwellings the share of citizens that has chosen free choice (in contrast to general waiting lists) compared to all places at nursing homes. For the ratio of direct contact it is the share of the total time that is used in the citizens home.

The percentage of recipients referral to permanent and permanent home care, rehabilitation and referral to nursing homes at 67 years and above is calculated from the population pr. 31.12 the year in question. Likewise the percentage of recipients of preventative home visits at 75 years and above is calculated from the population pr. 31.12 the year in question.

Recipients: The number of citizens that get more home care and/or rehabilitation and/or preventative visits is reported to Statistics Denmark each month for every municipality. However some month can be missing for the individual municipality for more care or rehabilitation.

Time: For referral and provided home help time is a weekly average hours for two months in question. As months can be missing in the reports a yearly average is calculated for each municipality in the StatBank. Free choice in dwelling is calculated as number of days recipients must wait for a nursing home/nursing dwelling.

Service: The service for rehabilitation and maintenance rehabilitation shows, if a citizen has been rehabilitated. The service for preventative visits is if the recipient has been paid a visit.

2.5 Statistical unit

Services, hours with service, recipients divided at sex and age.

2.6 Statistical population

- **In general for home care, free choice of dwelling, preventative home visits and rehabilitation**: All recipients of home care, rehabilitation and preventative home visits. Citizens that are referred to a nursing home /nursing dwelling.
- **Clinical pathways and readmissions**: citizens at 67 years and older that have been hospitalized or have been readmitted.
- **Quality of service:** there is made a representative sample in proportion to the share of recipients of home care aged 67 and older. In 2013 Capacent has been in contact with 11.907 persons among citizens aged 67 years and older to the survey in order to make an interview. 80.5 percent of this group has made or partly made an interview on telephone or in person.

2.7 Reference area

Denmark.

2.8 Time coverage

- **Referral home care**: Data from 2008 and forward. For some of the underlying indicators there are data later then 2008.
- **Provided home care**: Data from 2011 and forward.
- **Training and maintenance training and preventative home visits**: Data from 2008 and forward.
- **Free choice of dwelling**: Data from 2009 and forward.
- **Clinical pathways and readmissions**: Data from 2007.
- **Ratio of Direct Contact**: Data for 2007-2009 so far. A clarification is expected for further development.
- **Quality of service**: Data for 2008, 2009, 2011 and 2013. The survey will be made every second year.
- **Rehabilitation**: Data from 2017 and forward.
- **Home nursing**: Data from 2016 and forward

All indicators that Statistics Denmark is responsible for are published.

2.9 Base period

Not relevant for these statistics.

2.10 Unit of measure

The unit of measurement is number. Recipients, hours and share are published.

2.11 Reference period

01-01-2017 - 31-12-2017

2.12 Frequency of dissemination

All indicators are yearly.

2.13 Legal acts and other agreements

Information from the municipalities care systems is obtained in accordance with the law: "Lov om retssikkerhed og adminstration på det sociale område", which state that the municipalities are obliged to give the statistical information as the Social Ministry demands. There is no EU-regulation.

2.14 Cost and burden

- **Information from the municipalities care system**: Most of the information is already in the municipalities care systems. Though, some of the municipalities have to implement specific care system modules to fulfil Statistics Denmark's demand of giving the information. In connection with Statistics Denmark's detection for errors the municipalities spent time to correct data and re-sent it. The information is used to create the indicators about home care, average waiting time, readmissions and preventative home visits.
- **Information from Statens Seruminstitut (a public enterprise under the Danish Ministry of Health**: The respondent burden is zero, as the information is already collected by Statens Seruminstitut. The information is used to create indicators about clinical pathways and readmissions.
- **Information from the Ministry of Social Affairs**: The respondent burden is zero. The information is used to create indicator about ratio of direct contact and indicators about quality of service.

2.15 Comment

At the webpage about elderly you can find further information

Elderly

3 Statistical processing

Before usage of data from the municipal care systems, Statistics Denmark makes a thorough error detection. All municipalities are asked to confirm their data. Only data, which is approved by the municipality is used. In the estimation of numbers of the country as a whole, data is used from earlier years in order to compensate for lacking data. Age on the citizen is changed to the age of the citizen ultimo the year in question. As not all the municipalities have reported all months, an average is calculated for the whole year for each municipality.

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3.1 Source data

The actual published indicators are based on following sources: In general, information from the municipalities' care systems (in Danish, EOJ) is used to calculate the indicators. Statistics Denmark receives the data on either monthly or yearly basis. If it is not possible to deliver electronically, manually reporting is done.

Clinical pathways and readmissions are based on Register for Patients from the Agency of Health and private hospitals'/clinics' reports to the Agency of Health.

Ratio of Direct Contact is based on the municipal reports of special accounts information to the Ministry of Social Affairs. The municipalities report the patient ratios, which are forming the basis for the municipalities' actual prices per hour. The Ministry of Social Affairs has changed the guide to calculate the ratio of direct contact, in 2010. There area is still debated and until a conclusion is made, it has been decided not to publish the ratio.

To calculate a total for the country regarding referral hours at nursing homes, rehabilitation and maintenance rehabilitation plus preventative home visits, the register of population from Statistics Denmark is used. The register includes and describes people who live in Denmark, in detail, on the basis of the available information from the register of personal identity numbers.

For error detection the register of population and the register of dead people are used.

To calculate the quality of service a sample based on telephone interviews and personal interviews is used. The Ministry of Social Affairs is responsible for the analysis.

3.2 Frequency of data collection

For referral home care, provided home care, home nursing and rehabilitation data is collected automatically every month. This frequency is not the same as the frequency of publishing, which is yearly. For preventative home visits, average waiting time for nursing homes/nursing dwellings, clinical pathways and readmissions plus ratio of direct contact data is collected yearly. For the analysis of quality of service data is collected every second year.

3.3 Data collection

Data is collected from the municipalities' care systems (in Danish, EOJ). In case that the municipalities have problems with sending data via the care systems, excel spreadsheet is used, which is received encrypted to Statistics Denmark. Data for clinical pathways and readmissions and ratio of direct contact are received on excel spreadsheet. Average waiting time is summarized data for each municipality and is received on mail. Numbers on clinical pathways and readmissions are received from Statens Seruminstitut (a public enterprise under the Danish Ministry of Health) on spreadsheet. The ratio of direct contact is received on spreadsheet, and quality of service is received as a SAS dataset from the Ministry of Social Affairs.

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3.4 Data validation

All data that is received from the municipalities is detected for errors by Statistics Denmark for invalid formats of data, personal identification numbers, company numbers and dead citizens. Some municipalities do not report. It can be due to changes in system or in staff. During the year some municipalities do not report for all months. About 25 per cent of all months are not reported. Therefore, it is not possible to see a potential variation over the year. When enumeration to the StatBank takes place, data are used from earlier years for lacking municipalities. In such cases the age of the citizen is changed to the citizen's age at the end of the year in question.. Therefore it is not illustrated, if there has been raises/falls in the municipalities in question, and moreover, if the population at home care receivers has changed characteristics, e.g.in terms of age. As not all municipalities have reported all months an average for the whole year for each municipality is calculated. If a municipality has reported for ten months, an average is calculated for those ten months.

3.5 Data compilation

Home care: Before usage of data from the municipalities care system a thorough error detection is made by Statistics Denmark. All municipalities are asked to confirm their data. Only data, which is either approved by the municipalities or Statistics Denmark is used. Detection takes place for errors in terms of invalid formats of data, personal numbers, company numbers and dead citizens. Citizens, who have received both municipal and private help only appear under private home care in the statistics.

Referral care in own home: Where the total for the country is calculated, data from earlier years are used for the municipalities which have not reported data. When data from earlier years are used, the age of the citizen is changed to the citizen's age at the end of the year in question. The information Statistics Denmark receives is a weekly average every month for referral home care in minutes. If a recipient e.g. is referred to one hour personal help every second week, the number of minutes, in average, are 30 minutes.

Provided home care in own home: Every month each municipality reports registration of referrals and provided visits from the municipalities' care systems (in Danish, EOJ). At the moment there are three suppliers of care systems. This is of importance for the usage of data as the reports are used differently according to which care system the municipality is using. To calculate provided home care three reports are used from the care system:

· L1.1 Start and stop hours · L1.2 Referral home care · L1.3 Provided home care.

Report L1.1 includes information about the visit for the planned home care visits, where the home helper has registered a start and stop time for the visit.

Report L1.2 is a registration on all citizens in the municipalities, who are referred to permanent home care after the rules about free choice. The referral home care is divided into personal help and practical care.

Report L1.3 includes information about the duration of the provided (actual) visit of the home helper. The report counts the actual minutes spent by the home helper. Originally, report L1.3 should cover all provided home care. Yet, the quality and the coverage appear to be defective for many municipalities. Therefore, the following method to work out provided home care has been decided: All persons who have received a visit according to report L1.3 are part of the population of home care receivers if the municipality or Statistics Denmark has approved the report.. Not all private suppliers have access to report data about provided home care in the municipalities care systems. So visits of the private suppliers of home care are for some municipalities not part of the reporting of L1.3. Therefore, persons from L1.2 who are referred to home care are included instead.

The referred services are corrected with a factor to calculate the provided help, as the provided help typically is lower than the referred help. The ratio between these two 'types of help'is found at a national level and on supplier type against a background of municipalities. For these municipalities both data about referred and provided help is found valid and approved either by the municipalities or Statistics Denmark. For some municipalities there can be only partly information about the private provided help. These services are included in the statistics and the municipalities' other referred services are adjusted with the national ratio and are included in the total provided home care. The above mentioned apply to the municipalities that do not use CSC (CSC is an enterprise that supplies a EOJ system) as a supplier. For the municipalities that have CSC as a supplier report L1.1 is included instead of L1.3. Also regarding the report L1.1, the data about private provided help are insufficient. Therefore, the same method is used here as for report L1.3. to impute private provided help. When a total for the country is calculated, data from previous years are used for the missing municipalities. In such cases, the age of the citizen is changed to the citizen's age at the end of the year in question. Data from Copenhagen Municipality is received from two different sources (Health Administration and Social Administration). If data is missing for both or for one of the administrations, then the conversion factor is based on how the conversion factor was between delivered and referred help in the previous year. In 2013 and 2016, there was no data available from the Social Administration in the Copenhagen Municipality.

** Rehabilitation ** If a municipality has only approved a few months during the year, we calculate an annual total by using the information in the months approved by the municipality. In 2017, Århus and Odsherred had not approved all months of the year.

Home nursing: Some municipalities report both home nursing in the residents own homes, nursing homes and psychiatric housing, and other municipalities only report home nursing in the residents homes. In order to have comparable data between municipalities, we have removed residents in nursing homes from the data, and the register is called 'Home Care in own home'. There may still be residents of psychiatric housing in the data, but this problem is considered to be minor

Free choice of dwelling: There is not a total for free choice of dwelling.

Preventative home visits: When a total for the country is calculated, data from previous years are used for lacking municipalities. In such cases, the age of the citizen is changed to the citizen's age at the end of the year in question. If there are not data from previous years, the register of population is used. Regarding the municipalities which report data and municipalities with data from the year before, a share is found for the part of the population who has received a preventative home visit. This share is multiplied to the population in the municipalities which have not reported data, in order to find the number of receivers. This is summed up with the known municipalities to a total for the country.

Training: When a total for the country is calculated, data from previous years are used for the lacking municipalities. In such cases, the age of the citizen is changed to the citizen's age at the end of the year in question. If there are not data from previous years, the register of population is used. Regarding the municipalities which report data and municipalities with data from the year before, a share is found for the part of the population who receives training. This share is multiplied to the population in the municipalities which have not reported data, in order to find the number of recipients. These are summed up with the known municipalities to a total for the country.

Clinical pathways and readmissions: In the spring of 2018 it was decided by the National Board of Health to implement a new definition of readmissions. The new definition is used in table AED20A on data back to 2012, so the numbers are comparable over time. The new definition uses non-specific readmissions, since no specific relationship between primary admission and readmissions has been established beyond time, for example. disease relationships in the form of the same / corresponding diagnosis. All acute readmissions within 30 days after discharge are included in the definition. The readmissions are related to the municipality where the patient's address is registered at the end of the admission at the primary hospital (last contact in the

admission). LPR is based on contact registration. This means that if a patient is moved from one department to another at the same hospital, an administrative discharge will be made from the first department and immediately afterwards an admission at the next department. In LPR this process is registered as two separate contacts. Similarly, when moving between different hospitals. Thus, a patient can be administratively admitted and discharged many times in the period from the patient enters the door of the hospital and until the patient is home again without the patient at any time is out of the hospital. In order to clarify when the patient is no longer in the hospital's care, it is necessary to determine the actual date of discharge. For this purpose, it is necessary to clarify whether the different contacts are temporally coherent. Continuous contacts are considered a coherent stay. A hospitalization is defined as a periodically close stay at one or more hospitals (consisting of one or more contacts) and for a total duration ≥ 12 hours. A number of connection rules are used that define when the contacts can be seen as a coherent stay and when the hospital's care ceases. Currently, two contacts are connected if they occur with ≤4 hours distance between the start and end

Ratio of direct contact and quality of service: No calculations are made by Statistics Denmark.

3.6 Adjustment

No corrections are made except what is already described under data validation and data processing.

4 Relevance

The authorities and public institutions and the population use the indicators for analysis, research, debate etc. Yearly, the statistics and development in method etc. is presented at Statistics Denmark's two committees for users: Regions and Municipalities plus Welfare Statistics.

4.1 User Needs

Users: Ministries, agencies, municipalities, regions, municipal organizations, unions, nongovernmental organizations, consultants, private companies, researchers, journalists, students and citizens. **Scopes of Application**: The scopes of application are for planning, analysis, statements, research, articles, public debate and legislation.

4.2 User Satisfaction

Yearly, the statistics and development in method is presented at Statistics Denmark's two committees for users: Regions and Municipalities and Welfare Statistics.

4.3 Data completeness rate

Not relevant for these statistics.

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5 Accuracy and reliability

Home care, free choice of dwelling, preventative home visits, rehabilitation, and ratio of direct contact: There are no calculations of insecurity. A total census has been used, but not all municipalities report every year. Clinical pathways and readmissions: There is no sample insecurity, as it is a total census. In general, there is not made an estimation of authenticity.

5.1 Overall accuracy

- **Home care, preventative home visits, home nursing, training and rehabilitation**: The source is the administrative care systems in the municipalities, and in general the reliability of the data is very high, though, in terms of rehabilitation, some of the municipalities have difficulties to distinguish between rehabilitation in light of the two laws, the Law of Service and the Law of Health. Therefore, services in accordance with the Law of Health might occur in the statistics. More and more municipalities introduce training and therefore it is different, whether the municipalities report this training as home care or as training or training maintenance, or if they for some years report the service under home care and for other years under training. In terms of provided home care, some municipalities have indicated that these services can be included nursing help, but it is not possible to remove these. All information is approved by the municipalities or Statistics Denmark before publishing. Not all months are reported by the municipalities, and this might lead to insecurity.In Ringkøbing Skjern Municipality, there has been a decline in the referred hours from October 2017, mainly due to the fact that, in connection with the implementation of FSIII, services have been moved from §83 to §138, for example. removal of support stockings. The municipality of Vesthimmerland has in 2017 included §94 and §95 in the referred hours. In Mariagerfjord Municipality, during 2017, citizens who receive rehabilitation after §83A will be included in the referred hours. For home nursing, we receive data from both the health administration and the social administration in the municipality of Copenhagen. Only the Health Administration has approved data (January-April) in 2017. Data from Copenhagen is thus not complete.
- **Free choice of dwelling**: As there gradually is statistics for several years, one is able to compare data for the years, and this gives a bigger reliability, as the development can be used in the error detection. All information is approved by the municipalities or by Statistics Denmark before publishing.
- **Clinical pathways and readmissions**: The register of patients (LPR) is validated by the Health Agency and the reliability of the information of the register is considered high.
- **Ratio of direct contact** This account is, in general, connected with uncertainty, as the municipalities use different methods to calculate the ratio of direct contact. The Ministry of Social Affairs has changed the guide for calculation of the ratio of direct contact in 2010. There area is still debated, and until a clarification is made, the ratio will not be published.

5.2 Sampling error

The sample insecurity is zero, as it is a total census.

5.3 Non-sampling error

Errors in coverage are found very limited, as the survey is a total census. This is the case, despite the fact that some municipalities do not report every year.

- **In general for home care, preventative home visits and training**: Measure mistakes might be due to invalid person numbers or company numbers. It could also be the case that the municipality has reversed personal help and practical care.
- **Free choice of dwelling**: The municipality might reverse citizens who are on the list of free choice of dwelling and citizens who are on the general waiting list.

5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

5.6 Quality assessment

- **In general for home care, home nursing, preventative home visits, training, and rehabilitation**: The quality is estimated to be high but cannot be measured. Most data come from the municipalities' care systems. At the moment there are three suppliers at the market for care systems. There might be differences between the three systems, which can be seen if the municipality changes supplier, as there might be small data breaks. In the total for the country, where lacking municipalities are included by using data from the year before, there might be uncertainty as we do not get raises/falls from these municipalities. In cases where municipalities have not reported and data is enumerated from the other municipalities and the register of population, there might be uncertainty. Yet, there is not missing data from the big municipalities.
- **Home care**: The reports involved are monthly. Not all municipalities are covered with adequate data. So there is varying coverage of the month for the municipalities, which is a source of uncertainty. Some few municipalities are missing, which gives an uncertainty in proportion to the total country. Moreover, there could be variations throughout the year that have not been registered. For instance, if there has been a fall from January to December, and the municipality only report in January, the fall will not be part of the statistics. Some municipalities have claimed that there might be nursing care in the reported data, but it is not possible to separate these. Some municipalities report rehabilitation under permanent home care, while other municipalities report this under services for training.
- **Free choice of dwelling**: The latest years 97 or 98 municipalities have reported, and it is possible to compare several years.
- **Preventative home visits**: Not all municipalities have reported data, which leads to uncertainty regarding the total country.
- **Training and maintenance training**: From 2010 Statistics Denmark started to receive encrypted data in Excel from the municipalities that had not been reported before. This has caused that Statistics Denmark now has data from many municipalities, meaning that a total for the country can be calculated. Yet, there is an uncertainty for the whole country as some municipalities still have not reported. It is uncertain to which extent training under the Law of Health is in the statistics.
- **Clinical pathways and readmissions**: The register of patients (LPR) is made on basis of the reports from the individual hospitals. Data is reported to LPR, when the hospitalisation is finished. This is estimated to be done for almost 100 per cent of cases.
- **Ratio of user contact**: The reported ratio percentages for personal help, practical care during the day and personal help on other times are uncertain and might be encumbered with errors. Furthermore, the method for the weighting of the three ratio percentages to a total is a source to uncertainty. How to calculate the ratio is under consideration.
- **Quality of service**: A random sample is made every second year, which is representative compared to the share of home help recipients aged 67 and older. In 2013, Capacent (a survey company) has contacted 11,907 people among citizens age 67 and older for an interview. 80.5 per cent of this group has completely or partly done either a telephone interview or an interview by a visit.

5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the Revision Policy for Statistics Denmark. The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

5.8 Data revision practice

- **Home care, free choice of dwelling, home nursing, preventative home visits, training and rehabilitation**: In principle there is only published final figures. Subsequently there might be errors and changes. It this happens there will be revised for earlier years at the yearly update. Also changes in method is revised at the yearly update. At the moment it is discussed, how far back there should be revisions. So far data has been revised back to 2008, where the statistics started, if there has been errors in the reports. Revision is done once yearly in connection with publishing of new yearly data.
- **Clinical pathways and readmissions and ratio of user contact and quality of service**: Only final data is published.

6 Timeliness and punctuality

The StatBank is updated between three to six months after data are received from the municipalities.

6.1 Timeliness and time lag - final results

- **Home care, preventative home visits, home nursing, training and rehabilitation**: There are no temporarily figures. The statistics comes out yearly, and is published in spring the year after the year of reference.
- **Free choice of dwelling**: There are no temporarily figures. The statistics came out the first time for the year 2009 and is published once yearly in April/May.
- **Clinical pathways and readmission**: There are no temporarily figures. The statistics typically comes out in August. From the time Statistics Denmark has received the needed information from the Health Agency normally two days will pass by before the data is available.
- **Ratio of user contact**: There are no temporarily figures. The statistics comes out yearly in August. The Ministry of Social Affairs has changed the guide to calculate the ratio in 2010. There might be break in data. The area is still discussed and until clarification exists, it has been decided not to publish the ratio.
- **Quality of Service**: There are no temporarily figures. Statistics Denmark receives information from the Ministry of Social Affairs and publishes statistics shortly after. The quality of service 2013 was published in January 2014.

6.2 Punctuality

Home care, free choice of dwelling, preventative home visits, home nursing, training and rehabilitation: It is expected that the statistics is published without delay. This depends on whether or not Statistics Denmark has received the reports from the municipalities without delay. There can be different reasons, why the municipalities do not respond. It can be due to changes in system or staff. **Ratio of Direct Contact**: Ministry of Social Affairs has changed the guide to calculate the ratio in 2010. The area is still discussed, so it is chosen not to publish the ratio before a clarification is made. **Quality of Service**: When the analysis is received from the Ministry of Social Affairs, it is published without delay.

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7 Comparability

- **In general for home care, free choice of dwelling, preventative home visits, training and rehabilitation**: Every fifth year the municipalities' care systems must be invited to tender. For some municipalities this results in that they change supplier. At the moment there are three suppliers on the market. This can give minor data break.
- **Clinical pathways and readmissions**: No corrections for the degree of difficulty of the diseases have been made, meaning that comparison between the municipalities has to be done carefully.
- **Ratio of direct contact**: A new method will be developed to calculate the ratio for 2010 and forward. There might be data break.

7.1 Comparability - geographical

There are no international standards or statistics published by international organizations, which at first can be compared with these statistics.

7.2 Comparability over time

Working out the indicators it is attached importance that the statistics can be compared among the municipalities and over time.

- **Home care, preventative home visits, home nursing, training and rehabilitation**: The indicators for the year in question can be compared with earlier years. However, one need to take into account that some municipalities that have not reported for one or more years. Also it must be considered that municipalities can change care system. In 2011, provided home care was published for the first time. As individual municipalities might be missing in the statistics, data from the former year is used for these municipalities. This can give uncertainty in region and the total for the country. Rehabilitation has data from 2016 and onward. Rehabilitation came out first time in 2017.
- **Free choice of dwelling**: The indicator came out first time in 2009 and will for the next years be comparable with former years.
- **Clinical pathways and readmissions**: Data are comparable over time.
- **Ratio of direct contact**: Due to the different ways of collection in the calculation of the ratio in the municipalities a direct comparison between the individual municipalities and the development between individual years must be expressed carefully.

7.3 Coherence - cross domain

- **Home care**: Statistics for referred home care free choice is based on information about people, who are referred to receive home care and the service of home care that is covered by the referral. The municipalities' reported data with referred and provided home care are compared in the error detection and when contact with the municipalities takes place.
- **Free choice of dwelling, preventative home visits, home nursing, rehabilitation, ratio of direct contact and quality of service**: There are no other statistics about the subject.
- **Clinical pathways and readmissions**: Statistics Denmark and the Agency of Health publish other yearly statistics that are also built on the register of patients, and those statistics contain information about clinical pathways. It seems that the indicator for length of stay cannot be compared with these statistics as the indicator only covers some chosen diagnosis groups for persons age 67 and older. Furthermore, a comparison is difficult as the number of clinical pathways per discharge is calculated on the basis of sex and age standardisation. Information about readmissions cannot be found in other statistics.

7.4 Coherence - internal

- **In general for home care, preventative home visits, home nursing, training and rehabilitation**: For the municipalities that cannot report via their care system etc., data is received in Excel spreadsheet. It is not always that the spreadsheet is adequate. For instance, the date for first-time referral can be missing in cases where the municipality has sent in Excel spreadsheet for referred time.
- **Clinical pathways and readmissions**: It is provided that the underlying populations are comparable, e.g. in the occurrence of the individual diseases. In Denmark the occurrence of the individual disease differs considerable from municipality to municipality. Moreover, a certain variation in age and sex distribution is seen. To handle the differences in population between the municipalities, the material is standardized in terms of age and sex differences and stratified in satisfactory diagnosis groups. Readmissions are only standardized at regional and country level due to the low number of observations at the municipality level. Corrections are not made for the severity of the diseases or in case of competitive diseases, as there are not the necessary data to make such corrections. Because of the missing corrections direct comparison between the municipalities must be considered carefully.

8 Accessibility and clarity

- Site for area of elderly
- StatBank

8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

8.2 Release calendar access

The Release Calender can be accessed on our English website: Release Calender.

8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

8.4 News release

A NYT article is published on provided home care. Furthermore, an analysis in a NYT article will be published ad hoc, where the subject varies.

Nyt

8.5 Publications

Statistical Yearbook

STATISTICS DENMARK

8.6 On-line database

The statistics are published in the StatBank under the subjects Elderly care Elderly people receiving social benefits in the following tables:

- REHAB: Recipients referral to rehabilitation by region, age, sex and time
- AED01: Home care, free choice (provided hours per week) by region, type of benefits, age, sex and time
- AED16: Free choice of dwelling and average waiting time for nursing homes by unit, region and time
- AED14: Recipients referral to home care, free choice, by region, type of benefits, age, sex and time
- AED17: Home visits implemented as planned by region and time
- AED19: Discharges and length of stay (days) for persons aged 67, by region, unit, diagnosis and time
- AED20: Clinical pathways and readmissions for persons aged 67, by region, unit, diagnosis and time
- AED022: Home care, free choice (referral hours per week) by region, type of benefits, age, sex and time
- VH33: Private suppliers of home help by region and time
- AED21: Service indicators (per cent of all individuals) by region, services and time
- AED13: First-time referred recipients, free choice, who use private contractor, by region, type of benefits, age, sex and time
- AED06: Recipients referral to home care, free choice, by region, type of benefits, hours per week, age, sex and time
- AED12: Recipients referral to home care, free choice, who use private contractor by region, type of benefits, age, sex and time
- AED021: Home care, free choice (referral hours average per week per recipients) by region, type of benefits, age, sex and time
- AED08: Recipients of rehabilitation and maintenance rehabilitation by region, type of benefits, age, sex and time
- AED012: Recipients of home care, free choice, who use private contractor by region, type of benefits, age, sex and time
- AED023: Recipients of home care, free choice, by region, type of benefits, hours per week, age, sex and time
- AED02: Home care, free choice (provided hours average per week) by region, type of benefits, age, sex and time
- AED10: Recipients of preventative home visits by region, home visits, age, sex and time
- AED07: Recipients referral to home care, nursing homes/nursing dwellings) by region, age, sex and time
- LIGEHI12: Gender equality indicator on referral people to home care by indicator, region, age, family type and time
- LIGEHI13: Gender equality indicator on referral hours to home care (average) by indicator, region, age, family type and time

8.7 Micro-data access

The data material is stored in Statistics Denmark. It is possible to receive basic data on the basis of fictive person numbers through Statistics Denmark's Division of Research Services.

STATISTICS DENMARK

8.8 Other

Special analysis can be made against payment. This is possible through the special division, the Division of Research Services or the Customer Centre. Data are not sent to Eurostat or other institutions.

8.9 Confidentiality - policy

No legislative measures or other formal procedures have been made

8.10 Confidentiality - data treatment

For bed days and readmissions discretion have been made, where municipalities with fewer than 5 observations (ie 1-4 observations) are discretioned. Municipalities with 0 observations will not be discretioned. When calculating frequencies where the denominator is between 5-9 the frequency is discretioned, because a frequency based on a low denominator will often not be corrective. The number of regional and country-level landings and bed days is rounded up / down to the nearest 5, as they are included at lower aggregation levels in municipality tables and may make it possible to figure out how many people hide behind a discretioned number. For readmissions, there is also rounded up / down to the nearest 5. The remaining statistics are published at a level that does not require discretion.

8.11 Documentation on methodology

Documentation for how total for the country is calculated can be seen of the note 'Imputering af borgere på plejehjem/-bolig'.

Elderly. See under Documentation.

Description inclusive example how first-time referred receivers, who use a private supplier is calculated.

Elderly. See under Documentation.

8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

9 Contact

The administrative placement of these statistics are in the division of Welfare. The person responsible is Sofie Biering-Sørensen, tlf. +45 39 17 33 68, e-mail: sbs@dst.dk.

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