

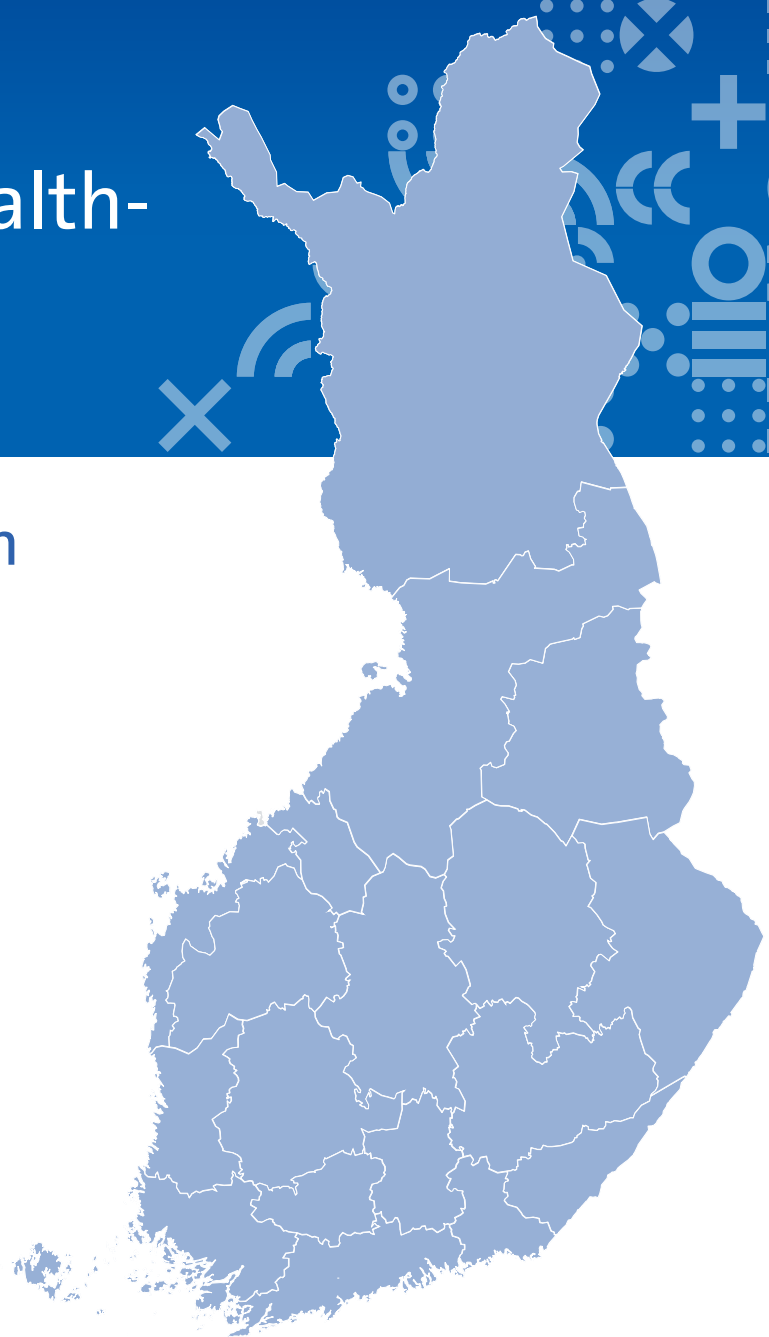
FROM DATA TO EVALUATION

Aiming for better services

Social and Health- care Services in Finland

Expert evaluation
- Autumn 2018

Pekka Rissanen (ed.)



Contents

Introduction	3
Expert evaluation	4
Key findings	5
1. Population and the operating environment	6
2. Social and healthcare services funding and costs	11
3. Promoting health and well-being	13
4. Specialised medical care	16
5. Primary healthcare	21
6. Oral healthcare	24
7. Services for children, young people and families	26
8. Mental health and substance abuse services	29
9. Social services for working-age people	33
10. Services for disabled people	35
11. Services for the elderly	37
References	40

Professor **Pekka Rissanen**, Director of Assessment, is responsible for national monitoring and evaluation and has conducted the expert evaluation. The evaluation work has been coordinated by Project Manager **Kimmo Parhiala**. Research assistant **Tuuli Suomela** has participated in the compilation and processing of the data. Evaluation managers **Tiina Hetemaa**, **Raimo Kekkonen**, **Nina Knape**, **Hannele Ridanpää**, **Eija Rintala** and **Jukka Kärkkäinen**, as well as experts from various task forces have participated in the evaluation.

ISBN 978-952-343-360-1
<http://urn.fi/URN:ISBN:978-952-343-360-1>
ISSN 1799-3946 (net publication)

Introduction

In the spring and autumn of 2018, the Ministry of Social Affairs and Health (STM) and the National Institute for Health and Welfare (THL) rehearsed the assessment and guidance activities related to the organisation of regional social and healthcare services (HE 15/2017, § 30 and 31).

To complement this, THL has now for the first time, in accordance with the Draft Law of the Act on Organising Health and Social Services, compiled this national expert evaluation. The evaluation is designed to help national and regional level office-holders and decision-makers in their steering activities and decision making.

The evaluation focused on the activities of 2017 and used the regional division according to government proposal (HE) 15/2017. THL compiled the SOTE (social welfare and healthcare reform) knowledge base for the exercise and made an expert assessment of how the regions organise SOTE services.

Results of THL's expert evaluations of regional SOTE services have been used in the national evaluation. They were based on national comparable indicator data and reports prepared by the national supervisory authorities, and were produced in close cooperation with the regions. Most of the indicators used in the evaluation have been taken from the Cost-effectiveness Indicators in Social Welfare and Health Care that is being prepared for the SOTE reform. The indicator data are publicly available at <http://proto.thl.fi/tietoikkuna>

Some of the indicator data have been updated since the regional evaluations in the autumn of 2018. Additionally, recent trends in key indicators have been included in the evaluation. The development of conditions in Finland has also been compared, where appropriate, with international data, mainly from other European countries.

There have been challenges accessing the information needed for the evaluation. For example, there is a lack of standardised information gathered from across the country on several aspects of social welfare. In the future, it is necessary to pay attention to how up-to-date the available information is. The coverage of information that is produced needs to be improved and processes accelerated in organisations which produce and collect information.

When interpreting the results, it must be taken into account that regional organisation can only be evaluated once the responsibility for organising services has been transferred to the regions. This evaluation has been carried out by combining the activities of municipalities and hospital districts based on the proposed regional division by the government. Occupational healthcare and other privately funded SOTE services are therefore excluded.

The social and healthcare system is changing, and as a result, so is the evaluation and control of the system. In the future, guidance and evaluation will increasingly be based on data. For its part, this evaluation report serves these new ideas.

Helsinki 27/02/2019

Markku Tervahauta

Director General

Pekka Rissanen

Director of Assessment

National Institute for Health and Welfare (THL)

Equal access to services is inadequate

Although the availability of several SOTE services has improved there are inadequacies in regional availability. There are, however, variations in different services.

For example, maternity and paediatric services and vaccination programmes are carried out almost equally across the country.

There are however considerable regional differences in access to primary healthcare. The differences are partly due to the decisions of municipal service providers and how they have structured the services. In part, the problems in equal access to primary healthcare stem from the regional differences in the availability of medical practitioners. The number of doctors per 10,000 residents varies from 4.4 to 8 in proportion to the regional requirements. Shortages of medical practitioners in primary healthcare are likely to increase the use and costs of hospital services.

There are also problems with equal access in a number of social services, such as child protection services. Regional differences can be caused by a lack of qualified social workers or other professionals, such as therapists.

There are considerable differences in how the regions have structured care services for the elderly, and whilst the need for institutional care is decreasing, the proportion of outpatient services in the service offering varies considerably between regions.

The nationally-targeted structure of care services has not been achieved in many areas in the country. Almost everywhere, there are problems with the availability of home-based services, especially for elderly people whose service needs are not considered critical.

There are considerable regional differences in administrative integration

In some regions, there is only one organisation that provides services, but in others there are over twenty. This naturally has an impact on the development of service integration.

For example, in South Karelia, Eksote is the only organisation that provides services, and has also been able to integrate service operations. Regional SOTE expenses have risen moderately, and it can be estimated that carefully implemented organisational service integration has eased cost pressures.

It is clear that the integration of services in different ways and at different levels can be greatly enhanced throughout the country. Particularly important is the successful integration of services for the elderly so that local services support different appropriate housing and care services as well as possible.

The productivity of specialised medical care could be improved

The costs of SOTE services vary a lot between regions. Variations in the net expenditure per resident are largely explained by the differences in the needs of the population. However, the need-adjusted expenditures also vary a lot. The differences are largely explained by reasons relating to service provision.

Regarding the productivity of SOTE services, comparable information on specialised somatic medical care is available. Differences in productivity between hospitals and regions are considerable. Specialised medical care accounts for nearly 40% of the total SOTE expenditure, so these productivity gaps are significant in terms of ensuring adequate funding. The productivity of specialised medical care could be improved and more hospital services could be produced without the need to increase the number of resources. This would slow down the rate of increase in SOTE expenditure without reducing the volume of service provision.

Pekka Rissanen

Director of Assessment

National Institute for Health and Welfare (THL)

1 The increase in social and healthcare spending per resident appears to have stagnated in recent years. However, there are differences in the changes of expenditure between SOTE services. Expenditure on specialist medical care has increased slightly, but expenditure on primary healthcare has decreased correspondingly. Costs for round-the-clock elderly care have increased.

SOTE expenditures vary widely by region. (In 2017, the costs were EUR 2,850 per resident at their lowest, and EUR 4,010 per resident at their highest). This was mainly due to fluctuations in service needs, age structure and population changes (birth rate, mortality, internal country migration / immigration).

The impact of occupational health and privately funded services on the use of and spending on public services also varies from region to region.

2 Expenditure is projected to increase in the coming years as a result of population growth and an ageing population. Regional costs may also increase due to a rise in general cost levels and the possible transfer of funding for existing national health insurance to the regions.

3 With an ageing population the service needs of the population are increasing. Life expectancy has increased and morbidity has decreased, but there are wide differences between service needs in different regions.

4 The availability of health services as a whole has improved. However, the development of the services is very uneven between the regions. There is less knowledge of the availability of social services. The availability of home services for families with children and other family services has improved. However, there have been problems with the availability of child welfare services. For example, the assessment of the need for child protection services in some regions often misses the target timings set by law, and there are even greater variations in the completion of evaluations within the statutory deadlines.

5 The focus of both somatic and psychiatric specialist care is shifting from in-patient care in hospitals to outpatient care. On the other hand, jointly run emergency services have transferred some services from primary healthcare to specialised medical care.

6 The use of substance abuse services has decreased due to the decline in sales of alcoholic drinks. Rates of homelessness have also decreased.

7 In line with the current governmental policies, services for the elderly have shifted from institutional services to home-based services. Institutional care for the mentally disabled has also been almost completely replaced by various housing services.

8 Housing services for the elderly have almost completely replaced institutional care, and in particular, the use of 24-hour serviced housing has increased. Private operators are providing nearly half of the services.

Home-based services are provided more than before. The focus in home-based care has shifted to the service needs of those customers who are living at home but who have health problems. The number of home-based services for those in less need of physical help has decreased.

9 The recruitment difficulties of key occupational groups affect the regions' opportunities to develop their services. In some regions there is a shortage of specialist doctors. Lack of specialised workers, such as social workers, different types of therapists and health centre doctors, undermines access to basic services. As a result, customers are directed to specialised services, which increases costs.

10 Public investment in the development of SOTE services has been particularly focused on healthcare buildings. Some construction investments have provided the opportunity for cooperation between basic services and specialised medical care, but the majority of investments are directed at specialised medical care. Private sector investments have focused on care services in particular.



1.1. Population development data

Population growth in Finland has slowed down. About 5.5 million people lived in Finland at the end of 2017. In 2010, the population grew by 4.4 promille, and in 2017 by only 1.8 promille. The birth rate has declined over the past ten years by about 2 promille units (in 2008 the birth rate was 11 per 1,000 residents, in 2017 it was 9 per 1,000 residents).

At the same time, mortality increased by just under 1 promille (9.2 promille in 2008, or 9.8 promille in 2017). In 2016 and 2017, mortality rates exceeded birth rates. The population numbers grew in five mainland regions of Finland and decreased in twelve regions. There was one region where the situation did not change noticeably.

Approximately 70 out of 1,000 people have foreign backgrounds. The proportion of people with foreign backgrounds is growing. The majority of foreigners live in Uusimaa (129 per 1,000 residents) and least in Southern Ostrobothnia (22 per 1,000 residents). Annual net migration is about 15,000 people. Immigrants mainly settle to live in densely populated urban areas.

5.2% of the population are Swedish-speaking. Five of the regions have bilingual municipalities, and in Ostrobothnia about half of the population is Swedish-speaking.

1.2. An ageing population presents challenges to SOTE services

The population in Finland is ageing faster than other European countries. According to EuroStat statistics, the proportion of people aged 65 and over in Finland increased by 4.4 percentage points between 2007 and 2017. The EU average is 2.4 percentage points. Only in Malta was the population ageing faster than in Finland. In 2017, 21% of the population of Finland were aged 65 and over. The proportion of people aged 65 and over var-

ied considerably between the regions. Uusimaa region had the fewest people aged 65 and over (17%) and South Savo region had the most (29%).

THE POPULATION IN FINLAND IS AGEING FASTER THAN OTHER EUROPEAN COUNTRIES. THE PROPORTION OF PEOPLE AGED 65 AND OVER IN FINLAND INCREASED BY 4.4 PERCENTAGE POINTS BETWEEN 2007 AND 2017.

There are fewer people entering the employment market than leaving. The decrease in the number of working-age people also affects SOTE services. Occupational healthcare's share of primary healthcare needs is decreasing and the demand pressure is directed at publicly funded services.

The age dependency ratio in Finland is rapidly deteriorating

In 2017, there were 60 non-working-age people per 100 working-age people (total dependency ratio). The range of total dependency ratios between the regions was high (51–72). According to the population forecasts from Statistics Finland, the total dependency ratio will go over 70 in just over ten years.

There are also significant regional differences in employment rates. In 2017, the employment rate of the total population in the country was 41%, whilst in some regions only a third of the population was employed (36%–46%).

Development of the Finnish economy

The Finnish economy has developed positively in recent years following a long recession. In 2017, GDP grew by 2.8% and in the preliminary data for 2017 it was EUR 40,638 per resident. There are large variations between the regions. Value added GDP per resident was highest in Uusimaa, where it exceeded 31% of the country's average. The lowest per resident GDP was in Kainuu, where it was 28% below the national average.

ACCORDING TO FORECASTS, THE REGIONAL DIFFERENCES IN GDP WILL REMAIN SIGNIFICANT OVER THE NEXT TEN YEARS.

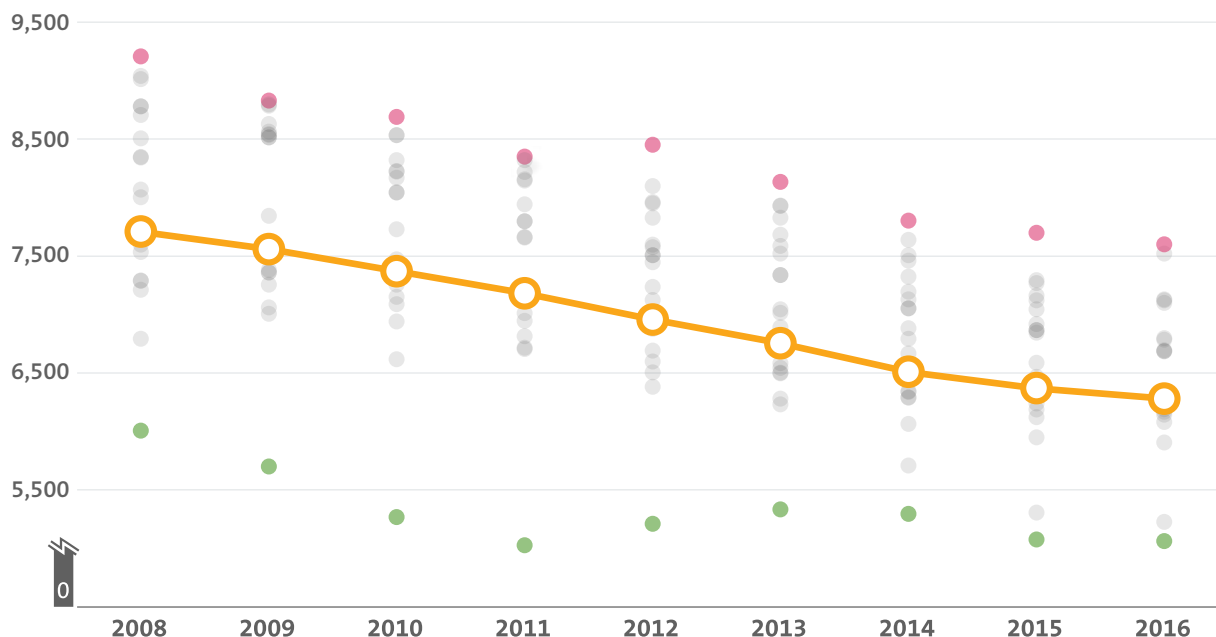
1.3. The health of the population has improved

The status of social and healthcare needs is described in this report with a need index, but there is no time series available to assess the annual changes in the needs index. Years of potential life lost data clearly shows that the overall health of the population has improved.

In 2016 in Finland, the years of potential life lost, caused by deaths occurring before the age of 80 was 6,280 per 100,000 residents (Figure 1). This is 19% less than in 2008. There are considerable regional variations between years of potential life lost and how it has changed over time. The most years of potential life were lost in the Kainuu region in 2008 and in 2016 (9,206 in 2008, about 17% less in 2016). The fewest years of potential life were lost in Ostrobothnia (6,006 in 2008) and Central Ostrobothnia (5,061 in 2016, down 29% from 2008).

FIGURE 1.

The years of potential life lost, caused by deaths occurring before the age of 80 in Finland per 100,000 residents (mean values and regional variation).



1.4. The number of service providers by region

Responsibility for organising social and healthcare services is to be transferred from municipalities and joint municipal authorities to larger self-governing areas. The responsibility of organising basic regional services currently lies with municipalities, joint municipal authorities, and cooperative areas operating under the municipal responsibility model. The ways in which services are provided also differ by region.

The same providers are largely responsible for the organisation of social and healthcare services, but the situation differs from one municipality to another.

Of the 295 municipalities in Finland, 16 municipalities are responsible for all their social services, but organise their healthcare services in the cooperative area. There are 20 hospital dis-

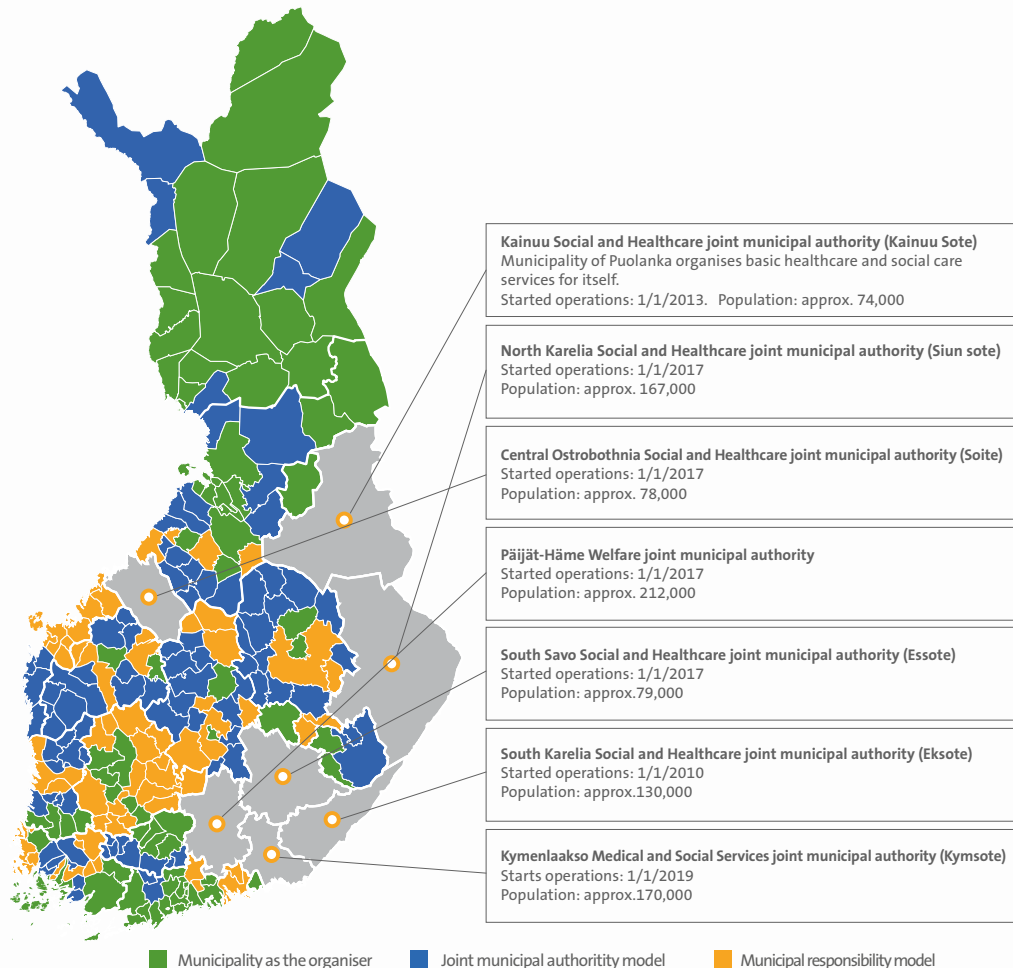
tricts in mainland Finland, and each municipality must belong to a hospital district.

The number and types of providers vary by region. In a few regions, there is only one organisation (joint municipal authorities) responsible for organising social and healthcare services and in some regions there are more than 20. Some of the providers operate in several regions. Practices also vary in the provision of basic and specialised healthcare. Some of the providers have integrated basic and specialist services, as well as social welfare services into the same organisation.

In 2017, there were a total of 142 providers of basic healthcare services in Finland. This was less than in 2015 when there were 151 providers. Most of them still provide services for populations of less than 20,000. The number of providers remained the same between 2013 and 2015, although population shares varied (Parhiala et al. 2016).

FIGURE 2.

Regional SOTE service providers



1.5. Distances to services

Geographical accessibility, i.e. the distance between the users of the services and their central hospital or health centre, has also been considered. As a rule, the central hospitals are located less than an hour and a half away from the municipal resident. In a survey conducted by the University of Oulu and Sitra, accessibility was calculated according to the travel time on the road network. The least accessible are the central hospital services in Lapland and Northern Ostrobothnia, where some of the population lives more than two hours drive from the nearest central hospital (Lankila et al. 2016).

The extremes of accessibility to health centres are found in Uusimaa and Lapland. The extremes of population-weighted averages in minutes are 6.5 minutes in Uusimaa and 12.3 minutes in Lapland. Accessibility of health centres was calculated as population-weighted averages in minutes when a passenger car is travelling outside of the rush-hour (Rusanen, STN Impro project, unpublished material).

1.6. The regions' readiness for SOTE reform

The Ministry of Finance (VM) and the Ministry of Social Affairs and Health (STM) have clarified the regions' readiness to implement the social reform.

The report that was published in the summer of 2018 was based on a set-up in which the regional councils would be established on 1 March 2019 and the organising responsibility would be transferred to the regions on 1 January 2020. The situation has since changed.

At the time of the report, 15 regions estimate that the change is possible within the proposed timetable. In the report, the regions stressed the need for a transition period in order to secure democratic decision-making (STM, 2018).

Regional progress was also reported on in the autumn of 2018. According to this report, the regional preparations have become isolated because of the lack of national-level decisions on the social reform. Now, however, those regions that have previously been slower in their planning seem to have caught up with other regions. Many

questions are still waiting for national-level decisions. (VM, 2018)

1.7. Availability of services

The use of social and healthcare services is increasing. The demand for SOTE services has grown, especially as the population ages. The demand for different types of service varies from region to region.

THE DEMAND FOR SOTE SERVICES IS INCREASING. DEMAND FOR SERVICES HAS GROWN AS THE POPULATION AGES, BUT VARIES BY REGION.

Changes in service structures must also be taken into account when assessing the availability of services. For example, the number of specialised medical care outpatient visits has increased due to the development of jointly-run services and targeted measures to reduce in-patient care.

The in-patient care at health centres has decreased, which may be due to structural changes in the housing services for the elderly. The changes are in line with the social and health policy goals.

The FinSote study asked about the users' experience of using the services. The availability of social services was considered to be lower than the availability of health services (**Table 1**). (Pentala-Nikulainen et al., 2018).

Every third respondent estimated that opening hours had hampered access to health services. Opening hours were the biggest single factor affecting access to health services. Residents of Kainuu reported to be most affected by opening hours and the residents of Kanta-Häme the least. Approximately 28% of respondents felt that access was hampered by travel. Residents in the regions of Lapland and North Karelia (32%) reported to be most affected by travel. 19% of respondents felt that customer fees hampered access to services. Residents most affected by fees were in Kainuu (24%) and least in Uusimaa (16%).

According to the respondents, access to social services was most affected by opening hours (38%), difficult journeys (30%) and high customer fees (22%). Residents of Uusimaa were least affected by all of these factors. Residents of Kainuu were most affected by social services opening hours, residents of Pirkanmaa were most affected by difficult journeys and residents of Ostrobothnia were most affected by high customer fees.

Income has an impact on the experience of service availability

In 2017 in Finland, customer fees, travel or long waiting times for healthcare services were seen as a problem more often than in other European countries. The perceived availability of services has however improved slightly since 2010, but in other countries the situation has improved even faster.

CUSTOMER FEES, TRAVEL OR LONG WAITING TIMES FOR HEALTHCARE SERVICES HAMPED ACCESS TO TREATMENT IN FINLAND.

People in the lowest income quintile were most affected. Problems in service availability have decreased from 2010 to 2017, but notably slower than in other EU countries. However,

according to EuroStat statistics, less than 5% of low-income people in Finland felt that access to treatment was hampered by customer fees, travel or waiting times.

There have been similar results in reports on the availability and access to oral healthcare. In 2017, more than 5% of people in the lowest income quintile felt that customer fees, travel or long waiting times prevented access to care. The situation in oral healthcare in Finland was better than in other EU countries. (Eurostat)

There is no comparative data between European countries on the availability of social services.

TABLE 1.

Feel that they have not received adequate services (% of those requiring services) (FinSote 2018)

	Regions		
	On average	Least	Most
Doctor services	16	13	19
Nursing services	11	9	13
Social services	46	30	60
Home care services for the elderly	38	21	52
Services for disabled people	40	24	71

The regional differences in the per resident costs of the social and healthcare services are high. They are highest in Kainuu, about 40% higher than in Uusimaa, where costs are the lowest. According to THL's forecast, the costs of social and healthcare services will grow most rapidly in areas where there is strong population growth. The rate of increase in costs should be slowed down whilst still ensuring that the service needs of the population are met.

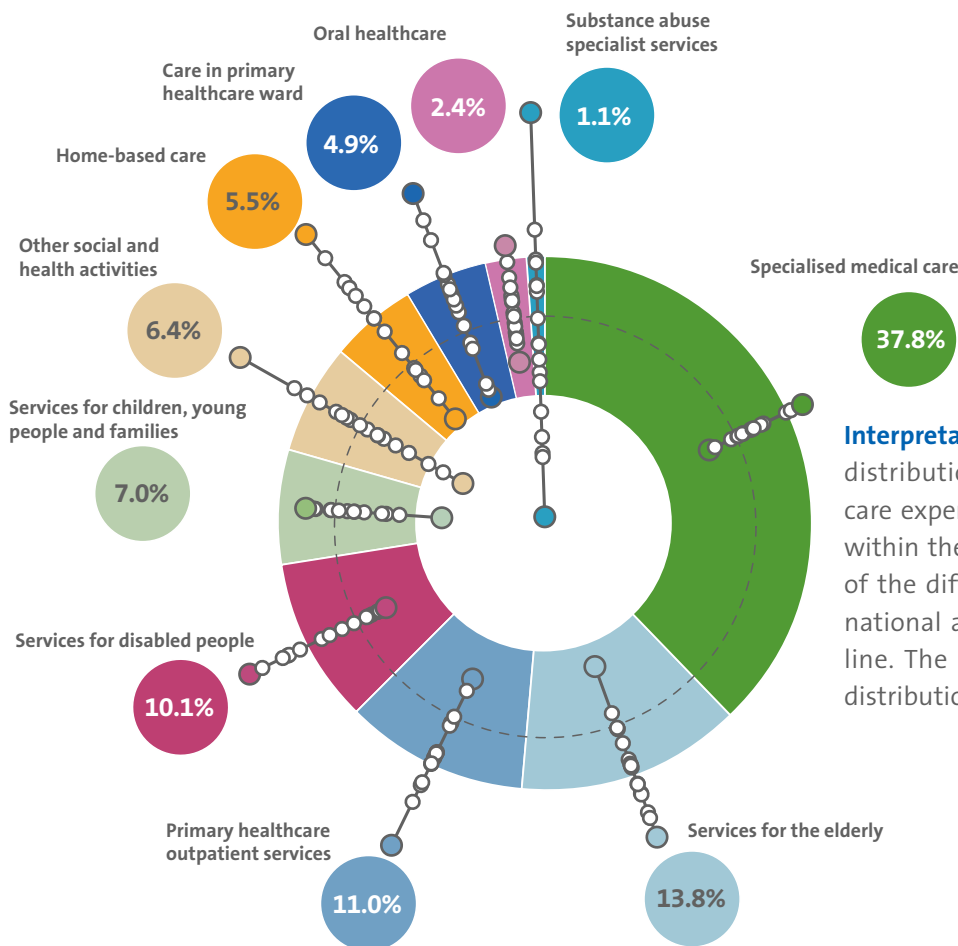
In the SOTE reform, the state is primarily responsible for the financing of the regions, while the region is responsible for allocating funding to services. At the same time, the regions are also responsible for providing the necessary services in a sufficiently high quality, customer-oriented and cost-effective manner.

The reform will shift financing from cost-based financing to computational or needs-based financing. The new model would be adopted in a gradual way, starting from 2021, and would be fully rolled out by 2026.

According to the calculations by the Ministry of Finance and the Ministry of Social Affairs and Health (25 Sep 2018), public funding for SOTE services will increase in seven and decrease in 11 regions. Regional funding per resident in euros would increase most in Päijät-Häme and North Karelia (EUR +191 per resident) and would fall most in Central Ostrobothnia (EUR -261 per resident). (see: www.alueuudistus.fi)

FIGURE 3.

Distribution of net social and healthcare expenditure and difference from national average in 2017, %



Interpretation: The diagram shows the distribution of net social and healthcare expenditure by function. The lines within the figures show the placement of the different regions relative to the national average shown in the dashed line. The percentage of the total cost distribution is shown in separate circles.

2.1. Regional differences in costs are high

In 2017, the total amount of public expenditure on SOTE was approximately EUR 18 billion. The net operating costs of social and healthcare services ranged from EUR 236 million to EUR 4.7 billion between the regions.

The differences are mainly due to differences in the population base of the regions. At the end of 2017, there were 69,000 residents in Central Ostrobothnia and 1.7 million in Uusimaa. On average, public social spending was EUR 3,229 per resident, but per resident spending varied by region between EUR 2,855 and EUR 4,013.

After 2015, SOTE spending has remained almost unchanged. In 2017, per resident expenditure was 0.8% lower than in 2015.

However, the cost of different SOTE functions has developed in different directions. Per resident net operating costs of specialised medical care increased by about 1% and the cost of outpatient primary care decreased by the same amount. In turn, the cost of 24-hour care has increased.

Legislation has changed ways of organising care, which is also reflected in cost allocation. The regulation of emergency services increased the number of joint primary and specialised healthcare services, and some of primary healthcare's past activities and costs are now recorded as special medical care. In addition, the per resident net cost of institutional care for the elderly and disabled has been reduced, as the need for institutional care has been reduced in line with national targets.

In 2017, the largest proportion of net social and healthcare expenditure was on specialised medical care (38%). The proportion of services for the elderly was the second largest at about 14% (12%–17%) (Figure 3).

2.2. Social and healthcare services needs-adjusted expenditure is the lowest in South Karelia and the highest in Lapland

Social and healthcare expenditure varies by region according to service needs (age, gender, morbidity, socio-economic status). The highest service needs are in the regions of Eastern Finland and the lowest are in Uusimaa.

Also, needs-adjusted SOTE spending varies widely between regions. In 2016, needs-adjusted SOTE expenses were the lowest in South Karelia, 6% below the national average, and the highest in Lapland, 12% higher than the national average.

However, the model for needs-adjusted expenditure does not take into account differences in the availability of private or occupational health services in different regions. Therefore, the differences may be due to the effectiveness of the treatment and care (the functioning of the treatment chains and low unit costs) or the poor availability of public services. High use of private or occupational health services can make reported needs-adjusted expenditure seem low.

2.3. Expenditure increases as the population grows

The population is expected to grow by an average of 4.7% (regional variation -7.8 to 11.7%) by 2030. The number of elderly people aged 65 and over is estimated to grow at a much faster rate of 28% (regional variation 16–39%).

Based on demographic change, SOTE expenditure is projected to increase by an average of 20% by 2030 (at current value, between 7–30% depending on region). According to THL's forecast, annual expenditure growth is highest in the regions with strong population growth. There are big differences between regions. SOTE expenditure is forecast to grow fastest in Uusimaa.

3.1. The starting point for promoting health and well-being is the seamless cooperation between municipalities and regions

The aim of promoting health and well-being (Hyte in the following) is to reduce the regional differences in the population's health and well-being, to improve well-being, health and ability to work, to prevent diseases, accidents and social exclusion, and to strengthen mental health and inclusion.

The task of municipalities and joint municipal authorities is to promote the well-being of their residents and the vitality of their region. In preparing their decisions, they must assess and take into account the impact of solutions on the health and social well-being of the population.

According to the Draft Law of the Act on Organising Health and Social Services, the municipalities, together with the regions, promote the well-being and health of the residents. During each term of office, the municipal council is required to prepare a welfare report and submit it to the regional council, which draws up a regional welfare report in cooperation with the municipalities in the region.

The role of the regions in the new legislation is to promote the health and well-being of the population as part of preventive social and healthcare services and to organise interconnecting services. The regions are also responsible for cross-administrative strategic management and securing expert support for the municipalities.

3.2. Promoting health and well-being becomes part of the regional plan

The preparation for the organisational structures that support the promotion of health and well-being vary from region to region. So far, seven regions have included the promotion of health and well-being in their regional plans, but in many regions the organisational plan is still being prepared. This is evident from a survey of regional Hyte organisers, conducted by THL. (Regional Hyte status in November 2018)

In 2017, the extensive welfare report required by the Healthcare Act had been approved by an average of 91% of the municipal councils that provided the information. In eight regions, all the municipality councils had approved a welfare report, but there are considerable variations between the regions. In some regions, only 63% of the councils had approved the municipal welfare report.

There is wide variation in the quality of welfare reports. About half (56%) of the reports provided information on the differences in the health and well-being between population groups (25–100% regional variation). Approximately two-thirds of the municipalities had a designated expert Hyte coordinator (33–100% regional variation). Just over half of the municipalities inform their residents about their opportunities to participate and influence on their websites (27–75% regional variation).

ONLY A FEW OF THE REGIONS HAVE MADE THE PROMOTION OF HEALTH AND WELL-BEING PART OF THEIR REGIONAL ORGANISATIONAL PLANS.

However, the regions have devoted themselves to the preparation of Hyte activities. In almost all regions, the first regional welfare reports, welfare strategies or similar reports have been prepared. More detailed descriptions of the reports are available on THL's website. The most recent examples of regional welfare reports are the 2018 Regional Welfare Reports of Southern and Northern Savo, which also include strategic priorities for the future promotion of health and well-being.

3.3. The health of the population has improved but large regional differences still remain

The data from THL's non-standardised morbidity index show that population morbidity differs greatly between regions (the entire country 100, regions 77–137), but also within the regions.

THERE ARE MAJOR REGIONAL DIFFERENCES IN POPULATION MORBIDITY.

Residents' estimates of their ability to carry on working until retirement age vary widely across Finland. On average, 23% of the working-age population aged 20–64 (18–34% regional variation) believe that they are unlikely to be able to work until their retirement age. On average, 28% of working-age people rated their health average or worse than average (24–33% regional variation). Correspondingly, 48% of those aged 65 and over rated their health as average or worse than average (44–55% regional variation). However, the perceived state of health has improved in recent years, as there are now fewer people in both age groups who rate their health average or worse than average.

Loneliness defines the need for social and healthcare services

Almost 10% of 20 to 64-year-olds said that they felt lonely either often or always (5.8–10.8% regional variation). The average number of people aged 75 and over who felt lonely was roughly the same, but the loneliness of older people varied more between regions (7.6–15.3%). Most loneliness was experienced in Kainuu and least in Uusimaa and Ostrobothnia.

In 2017, about one fifth of the 8th-9th grade students in primary school rated their health as average or worse than average (17–22% regional variation). This proportion has increased by about three percentage points over the last five years. Slightly more young people experienced moderate or severe anxiety (12% in 2017, 11–14% regional variation).

A little less than 10% of young people feel lonely often or always, and 8.5% said they didn't have any close friends. About 6% of students in the 8th-9th grade had been bullied at school at least once a week, but there were significant differences between the regions (3.3%–7.0%).

3.4. Number of smokers is decreasing but obesity is becoming more common

The living habits of Finns have both improved and deteriorated (Figure 4). Adults and schoolchildren are smoking less than before, and the proportion of smokers in the adult population is now the lowest in the EU (OECD, 2018). Primary school students' excessive use of alcohol has decreased, but the proportion of young people binge drinking varies between the regions.

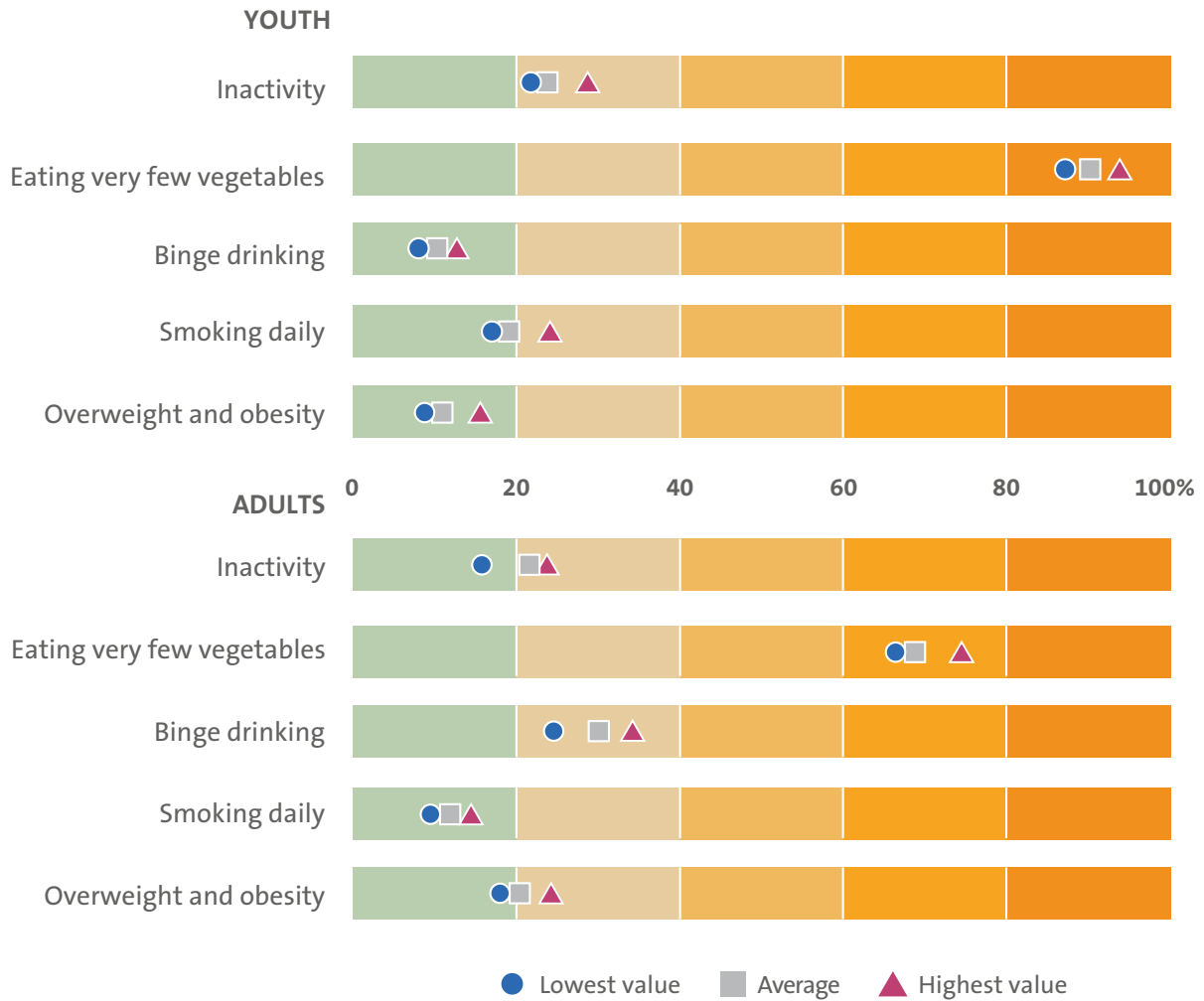
Finnish adults, especially men, still eat far less fruit and vegetables than adults in the OECD countries on average. Also, the proportion of people engaged in physical activity is small in relation to health objectives. People not engaging in recreational exercise activities is most common in Pirkanmaa and Southwest Finland.

Adult obesity has become more common in almost all EU countries, but the rate is increasing faster in Finland than the EU average. The proportion of obese residents varies quite a lot by region.

Although young people's use of alcohol has decreased there is an increasing problem with drug use. There are major differences between regions in the numbers of young people experimenting with drugs. Uusimaa has the highest levels of young people experimenting with drugs, across all school levels.

FIGURE 4.

Lifestyle and risk factors for youth and adult health and well-being (regional averages and highest and lowest value)



Interpretation: The figure shows the distribution of lifestyle and risk factor percentages for youths (8th and 9th graders) and adults (20 years old and over). The information is based on survey data. The figures show regional lowest, average and highest values.

4.1. Specialised medical care is at a turning point

Recent changes in legislation have affected the service structure, division of tasks and roles, as well as activities in specialised medical care. The main changes relate to the organisation of emergency care (Regulation 583/2017 on Emergency Care) and the centralisation of service provision at larger hospitals (Regulation 582/2017 on the division of labour in specialised medical care). The number of accident and emergency centres has been reduced and the number of joint primary healthcare and specialised medical care emergency centres has been increased.

As a result of the regulation on centralising services, the provision of the most complex hospital treatments are concentrated at university hospitals. In order to ensure there is sufficient availability of treatments and services, other treatments have also been centralised at larger hospital units. These include, for example, joint replacement surgery, back surgery and some of the most common cancer surgery, as well as childbirth. Public and private hospitals have also developed and implemented new ways of cooperation and division of labour.

Changes in care ideology and treatment technology have reduced the need for in-patient care and have shortened care periods. The proportion of treatments in outpatient clinics and home care have also increased. This applies to both somatic and psychiatric hospital care.

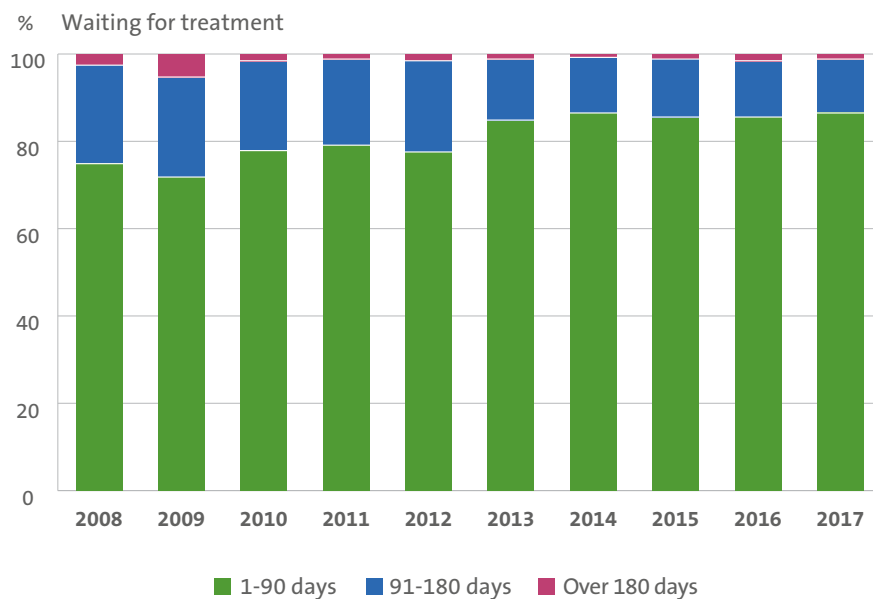
4.2. Access to specialised medical care has improved

The demand for non-urgent hospital appointments has increased in the last ten years. In 2017, the hospital districts handled 1.2 million non-emergency referrals, 6% more than in the previous year. This reflects an increase in the need for treatment and the number of people waiting for treatment, as public hospitals receive referrals for patients requiring non-urgent care.

Almost all referrals get actioned within three weeks, with only 0.9% taking longer than three weeks. At the end of 2017, 121,000 public hospital patients were on a waiting list for non-urgent care in mainland Finland. Just over 1% had to wait for treatment for more than six months (2.4 per 10,000 residents)

FIGURE 5.

Percentage of people waiting for non-urgent specialist medical treatment by waiting time in hospital districts 2008–2017 (correct on 31/12.) %



However, there are considerable differences between the regions. In two of the regions, no one had to wait for treatment for more than six months, but at its highest the number was 11.3 per 10,000 residents. In 2017, the median waiting time varied by region between 29 and 48 days. Numerically, the longest waiting times were for cataract surgery (8,997 patients), as well as knee and hip replacement surgeries (4,350 patients).

According to data on waiting times, access to hospital care has improved.

Recording data on waiting times began in its current form in 2007. At that time, 13% of all patients were waiting for over 180 days for non-urgent care, but nowadays the figure is about 1 to 2% (Figure 5). Also in the last 10 years, the proportion of those patients waiting for between 91 and 180 days for non-urgent care fell from 24% to about 12%. The situation of patients waiting for over 180 days has improved since the Act on National Guaranteed Access to Healthcare of 2005 came into force, and the possibility of penalty charges issued by the supervisory authorities. Occasional problems, such as shortages of specialised doctors in some areas, can affect access times.

4.3. Emergency care becomes centralised

Visits to accident and emergency for specialised medical care have increased by about a fifth in the last ten years.

In 2017, there were 207 visits per 1,000 residents and 171 in 2008. Growth has been particularly fast since 2015. The Emergency Care Regulation increased the number of joint accident and emergency centres, and some of the health centres' accident and emergency visits are recorded as specialised medical care. In some of the operating units, all visits to the joint accident and emergency centres are logged as specialist medical care visits.

As emergency services are centralised, patient travel times to the nearest accident and emergency centre might also increase. This sets functional operating requirements for emergency care. In 2018, an Emergency Assist telephone service (telephone number 116117) was launched in the Helsinki and Kuopio hospital districts. This is a social and healthcare advisory and guidance service. The service was expected to be gradually introduced throughout mainland Finland during 2019. During a call to the emergency assist service a nurse will assess the patient's need for emergency or urgent care.

4.4. The structural changes in hospital care are focusing on outpatient care

The number of specialised somatic medical care outpatient visits has increased by a third over the last ten years (1,101.2–1,441 per 1,000 residents). Across many specialist areas, surgical operations and other treatments have been transferred from wards and operating theatres to outpatient clinics.

Correspondingly, the number of hospitalisation periods per 1,000 residents has decreased by 10% (150 to 135 per 1,000 residents). Nowadays, patients requiring more demanding care are treated in wards.

In 2017, there were 74 in-patient care periods per 1,000 residents that required some form of procedure. This equates to over half of all treatment periods. Since 2011, the average length of somatic in-patient hospital stay has remained around four days. The average treatment period has also reduced elsewhere in Europe (OECD, 2018). An increase in the proportion of outpatient care has been driven by improvements in hospital processes, integration of internal operations, as well as the development of medical treatment methods. The hospitals' financial and profit targets have also contributed towards more customer-focused services.

4.5. The transfer of psychiatric treatment from hospitals to outpatient care

Structural service changes have also affected specialised psychiatric care. During a five-year review period, care periods and the numbers of in-patient days in institutional psychiatric care have declined significantly.

In 2017, the number of care periods was 6.8 per 1,000 residents, or 8.1% less than five years earlier. The number of in-patient days fell even faster, by 22%. In 2017, the number of in-patient days was 195 per 1,000 residents. In five years, the average treatment period decreased by an average of 3.3 days, or slightly less than 10%. In 2017, it was about 31 days. Calculated number of beds in psychiatric care has halved since 1997 (Figure 6). Correspondingly, the number of psychiatric outpatient visits increased. In 2017, there were 409 psychiatric outpatient visits per 1,000 residents. The proportion of outpatient visits have increased rapidly: around 23% from 2013 and 43% from 2008 onwards.

4.6. Patients' freedom of choice and movement between hospitals

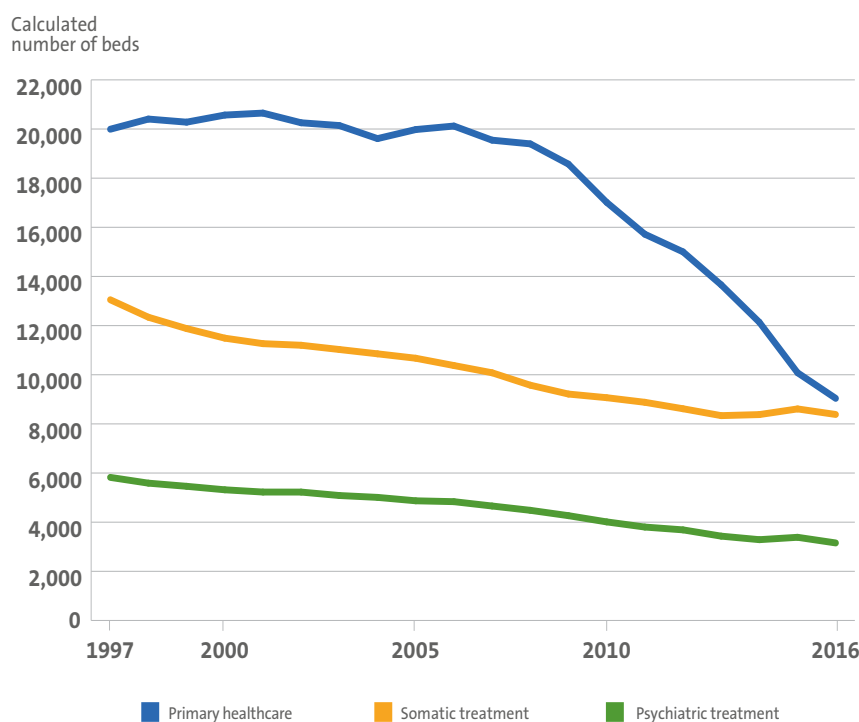
Legislation gives people the freedom to choose which public hospital they would like to be treated at. However, according to the 2018 national Fin-Sote survey, only about 41% of residents in Finland know about their right to choose a public specialist healthcare facility.

LESS THAN HALF OF THE POPULATION KNOWS ABOUT THEIR FREEDOM TO CHOOSE A PUBLIC SPECIALIST HEALTHCARE FACILITY.

On average, 7% of patients in specialised healthcare in 2017 sought to be treated elsewhere than in the municipal healthcare district (Figure 7). In this matter there were considerable regional differences (3–14%). In university hospital districts, the number of patients seek to transfer their treatment to other hospital districts was less than the average. The same applies to larger hospital districts like Central Finland or

FIGURE 6.

Change in the number of calculated beds in primary healthcare, somatic care and psychiatric care.



Päijät-Häme, or hospital districts that are geographically far away from university hospitals but maintain an on-call accident and emergency centre that provides services to a wide area (e.g. South Ostrobothnia, South Karelia and North Karelia).

On the other hand, university hospital districts receive a higher percentage of patients from other hospital districts. Uusimaa region is an exception to this as it has a large population base. Central Ostrobothnia has the largest number of patients who come from other hospital districts, 20.7% of all patients. In 2017, an average of 6.9% (range 3.2–20.7%) of patients in a hospital district were residents of a different district (Figure 7).

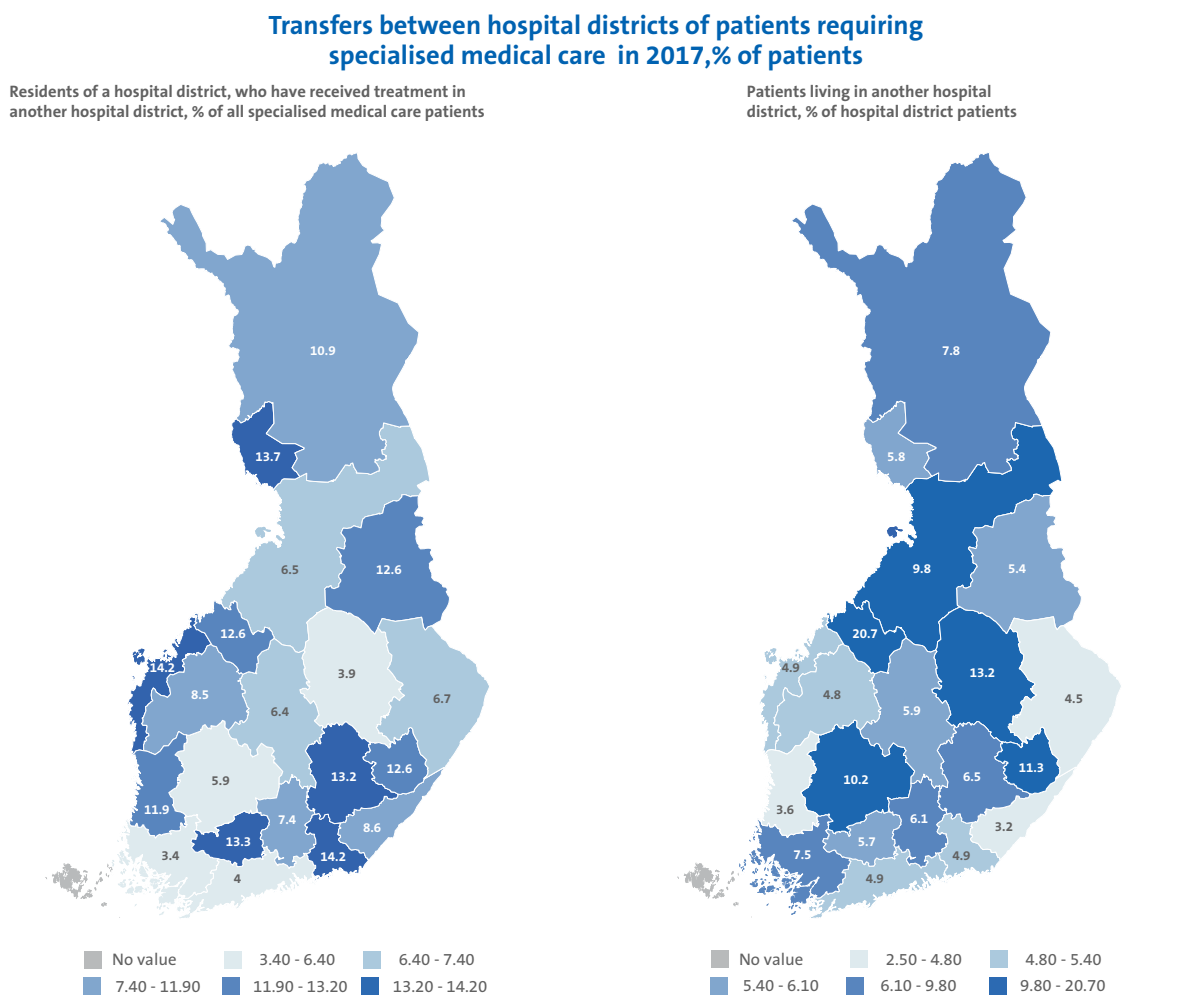
The statistics for 2017 apply to the current hospital districts. In some cases, the statistics also show inter-regional mobility between different hospitals, especially in the regions of Lapland and South Savo, where, before SOTE-reform, there are two hospital districts.

4.7. Regional productivity of specialised somatic medical care

The regional service productivity of specialised somatic medical services is studied according to the population’s place of residence, irrespective of the hospital or hospital district they receive their treatment in.

The use of specialised somatic medical services is measured by weighted treatment periods that describe the complexity of treatment, and which also take into account the patient structure of the area. The services include not only public-sector specialised somatic medical services, but also private-sector institutional services and day-surgery services. When reviewing regional demographics, the patients’ treatment chains are monitored beyond the borders of the hospital and hospital districts.

FIGURE 7.



Regional productivity describes how inexpensive the patients' treatment in that region is, regardless where the treatments are given. This is measured by the cost of the weighted treatment periods, i.e. by dividing the regional calculated costs of the population using the service by the number of treatment periods.

In 2016, productivity in the most productive region providing specialised somatic medical care was 11% higher than the national average. Similarly, in the least productive region, productivity was 7% lower than the national average.

Productivity was lowest in areas where there is a university hospital. University hospitals provide the most expensive and complex types of specialised medical care, which requires a wide range of on-call skills. Certain treatments have also been centralised to university hospitals nationwide. The volume of research in university hospitals as part of the hospital's normal operations is higher than average. The research is carried out with the help of the state budget allocated to university-level health research (formerly a special state allocation).

In 2017, nearly three out of four people in Finland used primary healthcare outpatient services. There were over 25 million visits, of which 26% were doctors' appointments. The number of visits to a nurse was 1.6 times higher than the number of doctors' appointments, but the situation varied a lot between regions (1.3 to 2.8 more visits). On average, a resident of Finland used non-physician services twice a year (range 1.7–2.8). There were 3.8 million patients.

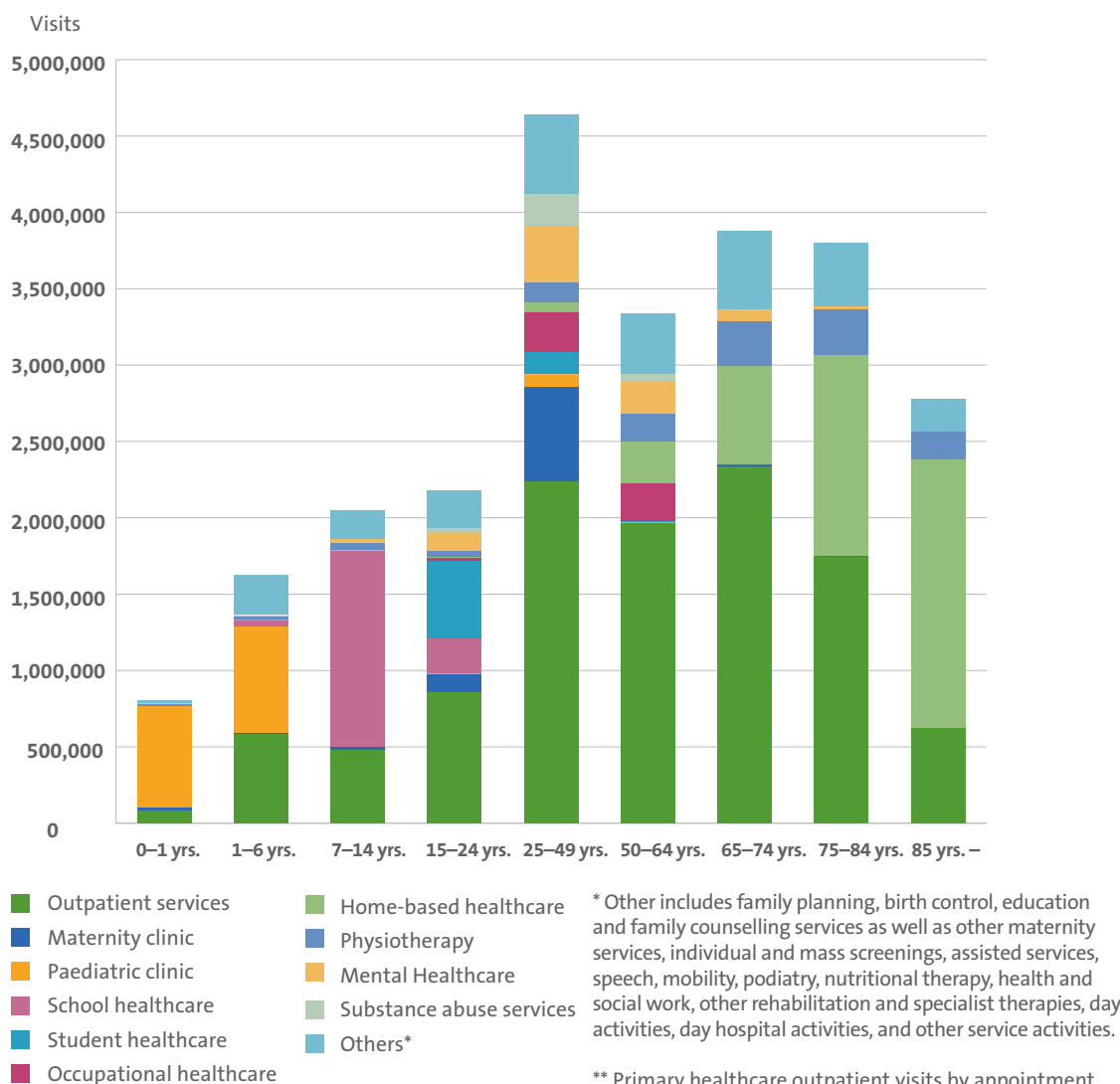
Outpatient visits were the largest service group for outpatient primary healthcare in 2017 (44%) (Figure 8). There were 2.8 million patients in outpatient care in health centres and a total of 11 million visits, of which about half were doctors' appointments.

THE USE OF PRIMARY HEALTHCARE SERVICES HAS REMAINED UNCHANGED.

In recent years, the use of primary healthcare services has remained at the same level. From 2013 to 2017, doctors' appointments decreased by 8%, but non-doctor visits increased by 10%. At the

FIGURE 8.

Primary healthcare outpatient visits ** by age group in different service formats in 2017.



same time, outpatient visits for specialised medical care increased by 18%, reflecting a change in the service structure for specialised medical care (Figure 9).

The proportion of online appointments of all outpatient primary healthcare appointments increased from 18% to 20%, which also reflects the ongoing change in the service structure. The growth rate varied considerably between regions (12–29%).

In 2017, the Student Healthcare Foundation's services were used by a total of about 64,000 patients, of whom 70% saw a doctor. The number of visits was 156,000, of which about one third were doctors' appointments.

The majority of occupational health services are provided by private companies, and only a small proportion are provided by public healthcare centres. The need for student healthcare and occupational healthcare varies considerably from region to region. The range of services offered by private doctors also varies considerably. Information from private service providers is not recorded in the Primary Healthcare Outpatient Register (Avohilmo), so the overall picture of the use of regional services and underlying availability of services is inadequate.

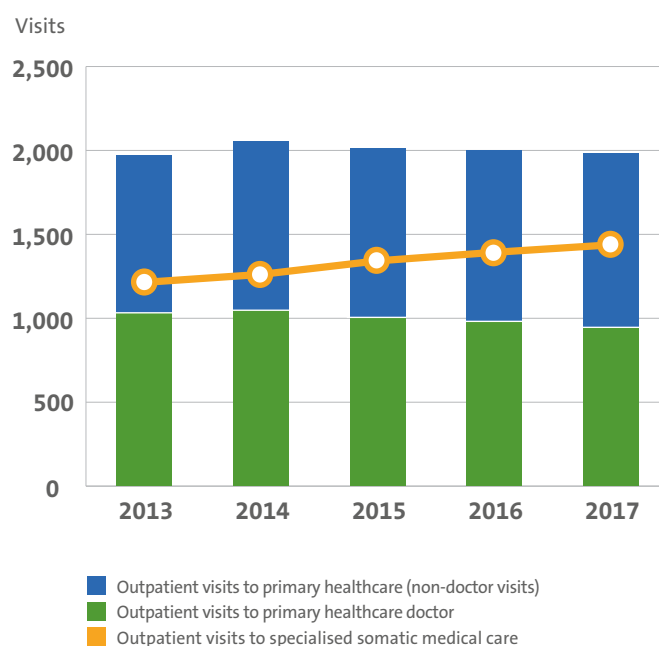
In 2017, the number of employed health centre doctors was 6.6 per 10,000 residents. According to a report from the Medical Association, in October 2017 about 5% of the doctor vacancies in medical centres (188 vacancies) were not filled. The number of health centre doctors per hospital district varies between 5.5 and 8.2 per 10,000 residents. (The Finnish Medical Association. Doctor vacancies in health centres).

The need for primary health care services varies by region. The sickness index standardised number of doctors varied significantly more than the non-standardised number, ranging from 4.4 to 8.0 per 10,000 residents. In terms of equal access to health centre doctors' services, the differences seem great.

Maximum waiting times set by the National Guaranteed Access to Healthcare Act (3 months) for non-urgent doctor's appointments was exceeded in over 2% of visits. The differences between regions were significant (0-12%). However, the waiting times were shortened and the differences between the regions decreased in the same year. In March 2017 the maximum waiting time was exceeded in about 4% of visits (regional variation 0–58%).

FIGURE 9.

Primary healthcare outpatient visits and specialised somatic medical care visits in 2013–2017, per thousand residents.



Access information for primary healthcare applies to patient waiting times for patients who have been assessed for treatment. In 2017, they accounted for more than 12% of all outpatient medical visits.

LESS THAN HALF OF THE PATIENTS WERE GIVEN A DOCTORS' APPOINTMENT WITHIN ONE WEEK OF CONTACT.

Non-urgent cases (new and follow-up visits) should always include an assessment of the patients' care needs in the patient information system (Healthcare Act 51 § 1326/2010), but in some regions the information is incomplete, especially after summer 2017. Practises for recording information need to be developed, as the reason for outpatient doctors' appointments was recorded in only three out of four visits (74%, regional variation 39–96%). Management by knowledge requires good patient records.

In October 2017, less than half of the patients (45%, 44% in March) were given a non-urgent outpatient doctors' appointment within one week of contact. Availability of appointments varied by region, from 26% of visits to 70% of visits with waiting times of less than one week.

According to a 2018 FinSote study, every sixth patient didn't receive adequate medical services. There was no separate data for public and private services. 11% of patients did not receive adequate nursing services. (Table 1, see page 9)

The net cost of outpatient care (without oral healthcare) in primary healthcare in 2017 was nearly EUR 2 billion. The per resident expenditure was EUR 355. The differences between regions were considerable (EUR 297-531). Per-resident net operating costs have not increased in recent years.

Nearly half of the patients in Finland are given a non-urgent primary healthcare dental appointment within three weeks time of initial contact. However, the availability of oral healthcare services varies considerably by region. Over the last five years, the proportion of people using public oral healthcare services has increased and visits to a private dentists have decreased.

Nearly half of the patients in Finland got to see a dentist within three weeks

Non-urgent primary healthcare dental appointments that were fulfilled within three weeks from initial contact were reviewed during two monitoring periods in 2017. Less than half of the patients were seen by a dentist in less than three weeks (44%, 46%, regional variation 19–63% and 24–63%).

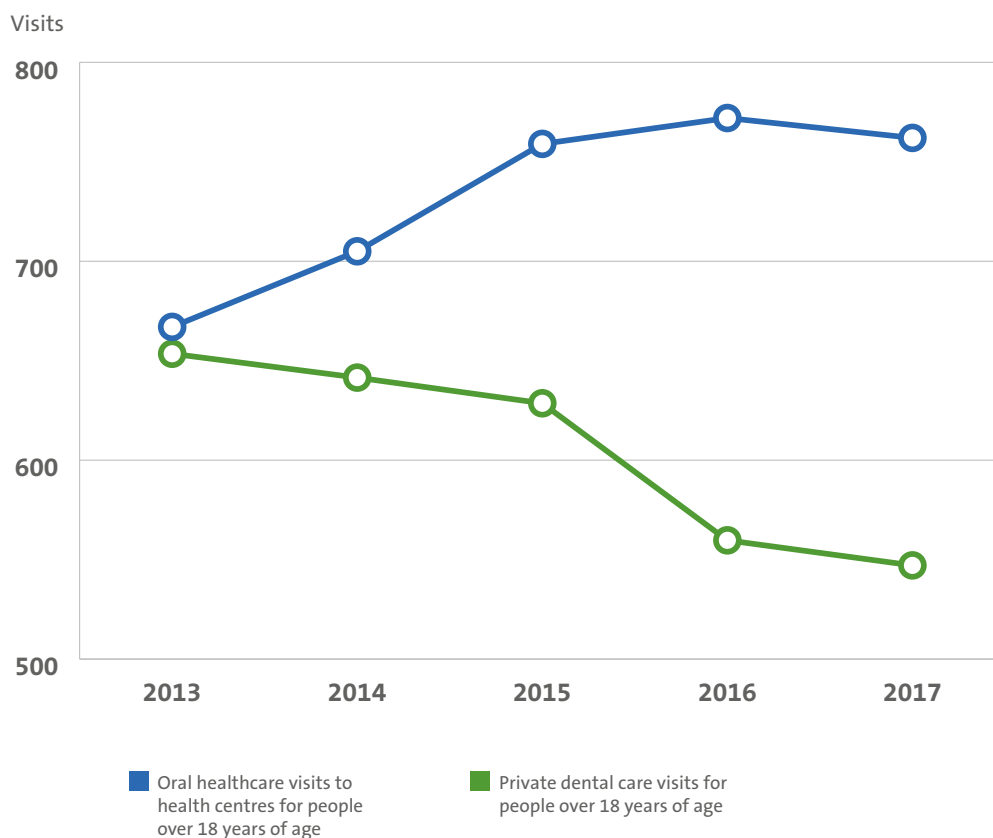
JUST UNDER HALF OF ALL PATIENTS ARE SEEN BY A DENTIST WITHIN THREE WEEKS.

According to the FinSote population survey, the differences in the shortages or inadequacies in dental services are slightly smaller (regional variation 14–27%). In the national customer feedback surveys that are carried out every two years, the respondents have been very satisfied with the services and little regional variation has been observed.

In the last five years, the proportion of people using public oral healthcare services has increased, while private dental visits have decreased (Figure 10). In 2017, 359 out of 1,000 Finns had used public oral healthcare services (regional variation 276–413 per 1,000 people). There are however big differences within the regions. It should also be noted that in some regions there are less private services available, which may increase the use of public services.

FIGURE 10.

Oral healthcare visits at public health centres and private dental visits of people aged 18 years and over, 2013-2017, per 1,000 people of similar age



Orthodontic treatment varies by region

In Finland, the oral healthcare of 12-year-old children is good. 61% of children that had an oral healthcare check had healthy teeth (regional variation 45–81%). In this age group, the DMF index for the number of cavities, fillings and removed teeth varied by region (0.5–1.8%). The lack of national guidance and children not being directed for treatment may partly affect the differences in the DMF index.

The proportion of 12-year-olds receiving orthodontic treatment has decreased over the last five years, and in 2017, nearly one third of this age group had received orthodontic treatment. Although the aim has been to create uniform and equal criteria for access to care (the SUHAT project), the situation varies by region (22–38% received treatment).

The oral health status of the adult population is represented by the statistic that 59% of Finns did not need treatment for caries or parodontitis. Here too, the differences between the regions were large (44–79%). The proportion of patients treated over six or more dental visits also varied by region (regional variation 6.3–14.3%). Accounting for visits to other oral healthcare professionals, the percentages are even higher.

Teeth are being brushed less in Finland than in other Nordic countries

Oral health is maintained and improved primarily through good self-care and systematic and regular support.

BRUSHED THEIR TEETH ACCORDING TO THE RECOMMENDED TWICE A DAY.

Only 42% of 8th and 9th graders brushed their teeth according to the recommended twice a day (regional variation 37–50%). According to the World Health Organization (WHO) survey (Inchley et al. 2016) children in Finland aged 11, 13 and 15 brush their teeth significantly less than their peers in other Nordic countries. The proportion of adults that follow the dental brushing recommendations highlight large gender differences (regional variation, men 45–63%, regional variation, women 71–84%).

In 2017, the net cost of oral healthcare was EUR 77 per resident in Finland (regional variation of EUR 67–99). Both public oral healthcare and private dental care costs have declined over the past few years. The cost of private dental care in Finland is almost the same as public oral healthcare, EUR 64 per resident (regional variation EUR 44–80).

ONLY 42% OF 8TH AND 9TH GRADERS

Children, young people and families do not have access to equal services throughout the country. The focus could be shifted towards early support and services. The service system should be developed as a whole instead of as individual components. In addition to the annual assessments of the regions, a targeted assessment is needed. With services for children, young people and families, there is a need for management and integration of the entire service system.

The service provider is responsible for coordinating the services, and the need for this is highlighted in the services for children, young people and families. Services for these groups include family centres, student services, as well as specialist level services.

Family centres combine into a single entity social and health services for families with children and the coordinated services and activities of municipalities and other providers. This may also include specialised level services.

The student services include school and student healthcare services, curator and psychiatric services, personalised study services and community-based student services. This basic level combines social and healthcare services and municipal cultural services.

Specialist level social and healthcare services include child and adolescent specialist somatic services, child and adolescent psychiatry, child protection and other social care services, such as disabled services.

7.1. The need, availability and use of services for children, young people and families

Maternity and paediatric health clinics provide core services for families. These services are comprehensively available throughout the country. For example, there are no significant regional differences in the coverage of periodic check-ups. However, extensive health check-ups for 4-year-olds required by the regulations were only carried out in 59% of children in 2017. The proportion varies between 51–66% by region.

Vaccination coverage is also quite good, but

the proportion of 13-year-old girls who had received the papillomavirus vaccine (HPV) was only 62%. Coverage of the combined vaccine (diphtheria, pertussis, tetanus and polio vaccine) which is given over the course of three vaccinations was 88% over the regulated time period, and the coverage of measles and mumps vaccines after the second vaccination was 93%. In particular, HPV vaccination coverage varied greatly between regions.

In Finland in 2017, 3 out of 100 people under the age of 22 were receiving family counselling. However, the number of customers varied by region, ranging from 0 to 8%.

HOME-BASED SERVICES FOR FAMILIES AND THE AVAILABILITY OF FAMILY SUPPORT SERVICES HAVE IMPROVED AND THE NUMBER OF CUSTOMERS USING CHILD PROTECTION OUTPATIENT SERVICES HAS DECREASED SIGNIFICANTLY SINCE 2015.

School healthcare was used for evaluating the availability of student care services. According to school health surveys, 4–5% of students in primary, vocational or high school were not able to access to the school nurse despite their attempts (regional variation 2–8%).

Under the Child Protection Act, 98% of the service assessments for children, young people and families in need of special support were initiated within the time limits set by law (regional variation 93–100%). By law, the assessments for service needs should be completed within 3 months but in 96% of cases there were delays. However, there were considerable regional differences (regional variation 75–100%).

In 2017, 4% of 0 to 17-year-olds were customers at child protection outpatient services. There were some differences by region. In this age group, an average of 1 in 100 cases involved the child being taken into care, and about half a percent of cases involved an urgent placement into foster care. Every third child taken into care was put into a state-run institution but there were considerable regional differences, 18–41%.

The proportions of children placed into foster homes and taken into care have not changed over the past nine years. However, in 2017 there were

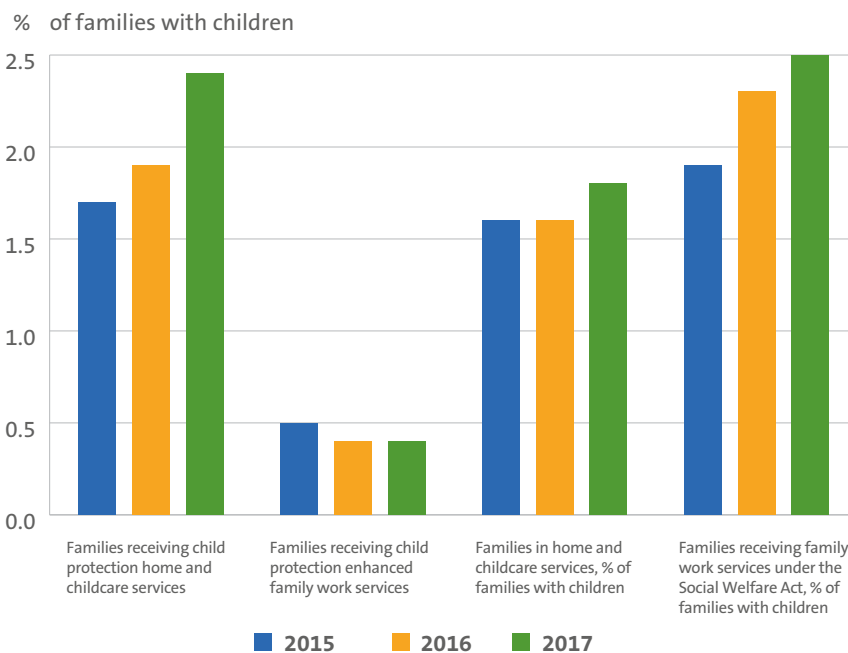
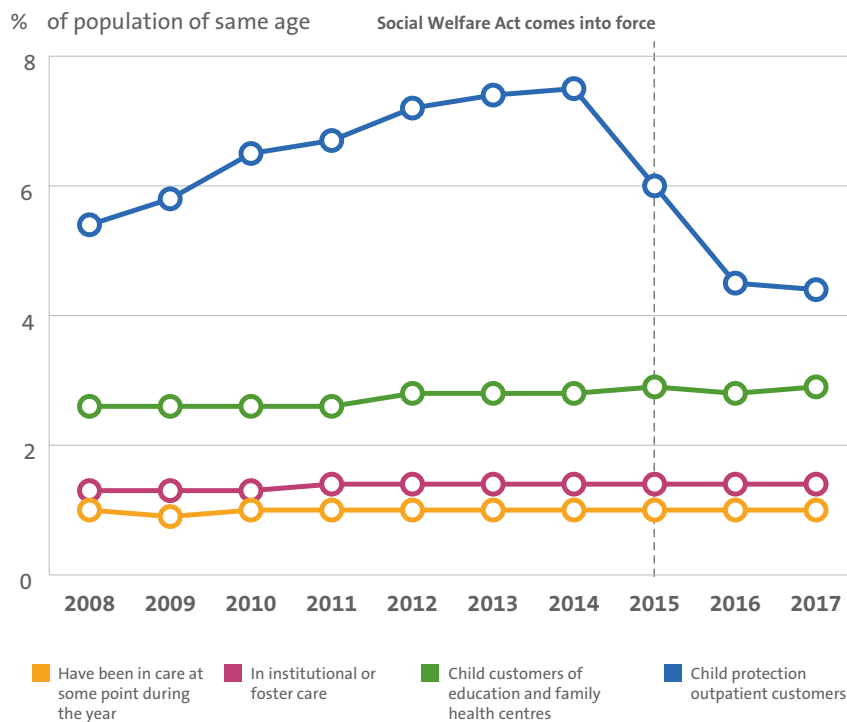
15% more children being placed into urgent foster care than in 2016 (Puustinen-Korhonen, 2018). More urgent placements into foster care are being made because different services haven't been coordinated or there is a lack of suitable services.

The Social Welfare Act's entry into force (2015–) is reflected in changes in customer numbers (Figure 11). The availability of home services for families with children and other family services has improved. The number of customers in child protection outpatient services has clearly decreased. The changes in customer numbers can be partially explained by an amendment to the Child Welfare

Changes in legislation are reflected in the customer numbers

FIGURE 11.

Development of customer numbers in family services 2008–2017 and 2015–2017



Act, whereby only children whose service needs have already been assessed are considered to be customers of child protection. Formerly, children whose service needs were being assessed were also considered to be customers.

7.2. There is only fragmented data about the cost of services for children, young people and families

The net per resident usage costs of services for children, young people and families are described in **Figure 12**. National statistics do not currently distinguish between the cost of these services and the costs of other categories of services, such as primary healthcare or specialised medical care.

7.3. The need for mental health services has increased notably but services are not equally available

In 2008, 12.4% of people aged 18 to 24 received

a sickness benefit on mental health grounds. In 2017, the figure was 17.5% in the same age group. The same trend is also evident in 13 to 17-year-olds' psychiatric outpatient visits. Between 1994 and 2016, the use of specialised adolescent psychiatric services has multiplied throughout the country.

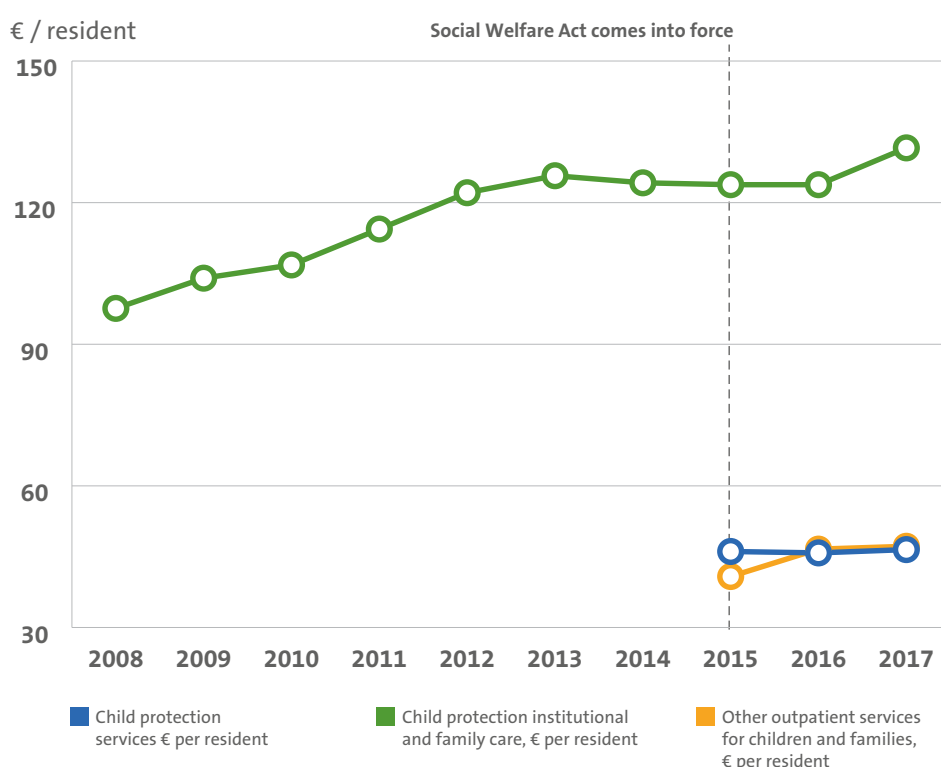
THERE ARE REGIONAL DIFFERENCES IN THE AVAILABILITY AND RANGE OF CHILD PSYCHIATRIC SERVICES.

In 2017, approximately 9% of children under 13 years of age and 17% of children aged between 13 and 17 who were receiving either outpatient or in-patient psychiatric care were not living at home. One in three children and over half of 13 to 17-year-olds living in state-run care facilities or in foster care were also a customer in adolescent psychiatric services. (Kangasniemi et al. 2018.)

More children are being directed towards specialised child psychiatric services. There are however regional differences in the availability and the range of services. Evidence-based treatment methods are not equally available to all customers. (Ahonen et al. 2017.)

FIGURE 12.

Development of net cost of social welfare outpatient services and child protection in 2008–2017



The treatment and rehabilitation system for mental health and substance abuse problems is fragmented in Finland. Public services are complemented and partly replaced by private services, but only a part of the population has access to them. This results in regional differences in availability.

Mental health disorders are the main cause of morbidity in the population. One in five adults has suffered from a recent mental health or substance abuse disorder. During their lifetime almost one in two people will suffer from a mental health or substance abuse disorder. These disorders cause a lot of long-term sickness and co-morbidity and are also the most common cause for disability pension and the second most common cause for sick leave periods (Center for Pensions 2018, Tuulio et al. 2018). Alcohol and drug problems do not only affect social and healthcare sector but also have an effect on public order and the judicial system. (THL 2018a).

8.1. There are concentrations of people with mental strain in Southern Finland and people suffering from psychosis in the East and the North

13% of 20 to 64-year-olds experienced mental strain (regional variation 10–15%). It was most common in large regions in Southern Finland.

17 per 1,000 18 to 24-year-olds and 21 per 1,000 25 to 64-year-olds received a sickness benefit that was based on the state of their mental health. These include both milder and more serious mental disorders. 3% of working-age people are receiving a disability pension due to mental and behavioural disorders (regional variation 2–4%). In 2016, the suicide rate was 14.3 people per 100,000 residents (regional variation 10–28).

Prevalence of psychotic disorders are reflected in the right to reimbursement for medicines to treat long-term psychotic illness, which is most common in Eastern and Northern Finland (1.8% for the whole country, regional variation 1.4–2.6%).

8.2. Alcohol use and its associated risks have reduced but drug use and its associated risks are increasing

Changes in the populations' substance use also affects the demand for services. Total alcohol consumption in Finland increased until 2007. Since then, total consumption declined by almost a fifth by 2017. Drug use is increasing, which increases the demand for substance abuse services. There are big differences between the regions in the number of drug-related harms. This is reflected, for example, in the numbers of new hepatitis C infections caused by intravenous drug use.

The type and nature of treatment services used by people with substance abuse problems varies across the country. The number of outpatient customers in drug rehabilitation treatment was 8 out of 1,000 residents (regional variation 5–12 per 1,000 residents). However, out of all primary healthcare outpatient doctors' visits, substance abuse problems were recorded as the reason for visit only in 0.4% of cases (regional variation 0.2–1%).

2.8 out of 1,000 residents were given substance abuse treatment as an in-patient in public health centres (regional variation 1.4–4.7 / 1,000 residents). In-patient admissions in substance abuse rehabilitation centres have decreased and is less common than the use of in-patient care in health centres. Health centre in-patient care is most common in northern Finland, where institutional substance abuse treatment in rehabilitation centres or 24-hour care is used less than in the rest of the country.

Mortality rates from alcohol abuse and other trends in alcohol associated harm have broadly followed the same development curve (Figure 13). However, alcohol use and its associated risks and harms vary greatly between regions. In 2016, alcohol mortality was approx. 31 per 100,000 residents (regional variation 15–47).

FIGURE 13.

Sale of alcoholic drinks, use of substance abuse services and alcohol mortality 2008–2017

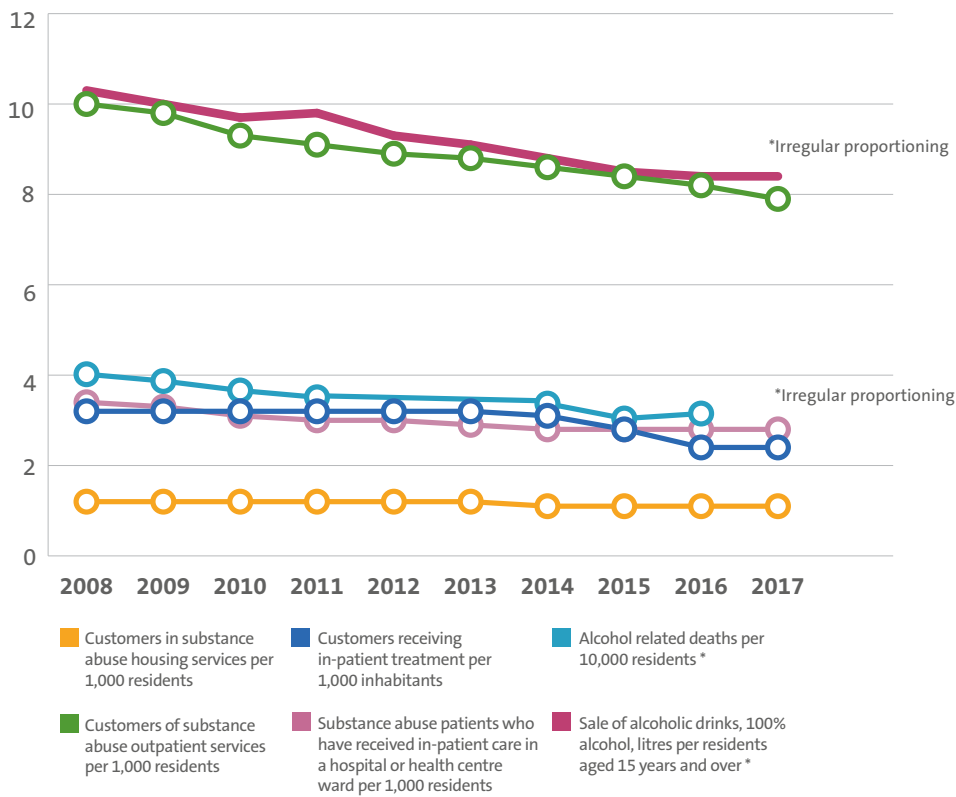
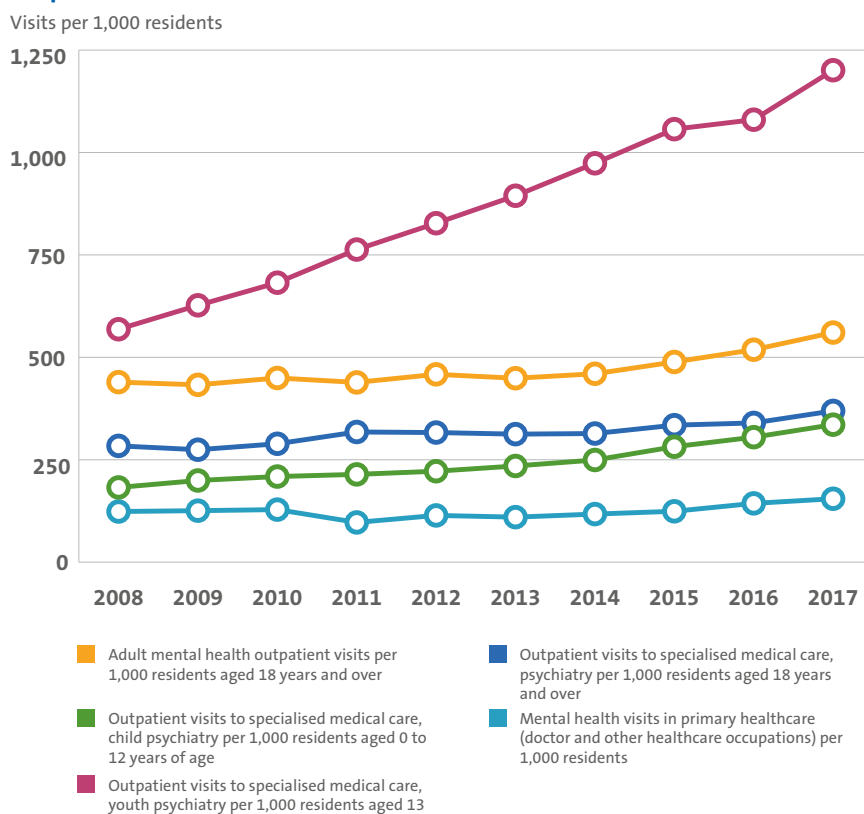


FIGURE 14.

Use of outpatient services in 2008–2017



8.3. Psychiatric hospital care increased in 2017, in contrast to previous years

Practices for organising and recording outpatient mental healthcare visits vary between regions. Therefore, services between primary healthcare and specialised medical care are distributed in very different ways in different regions. Overall, there were 561 outpatient visits per 1,000 residents to adult mental healthcare. (Regional variation 436–979). The number of visits has increased since 2016, when there were 519 visits per 1,000 residents (Figure 14).

Treatment of mental health disorders in primary healthcare is tracked by visit records. 4.4% of all primary healthcare outpatient doctors' visits were recorded as mental and behavioural disorders (regional variation 2,7–5,6 %).

THE PATIENT NUMBERS AND TREATMENT PERIODS IN PSYCHIATRIC HOSPITAL CARE HAVE BEEN REDUCING FOR A NUMBER OF YEARS BUT, IN 2017, THE NUMBER OF PATIENTS AND TREATMENT PERIODS IN HOSPITALS INCREASED.

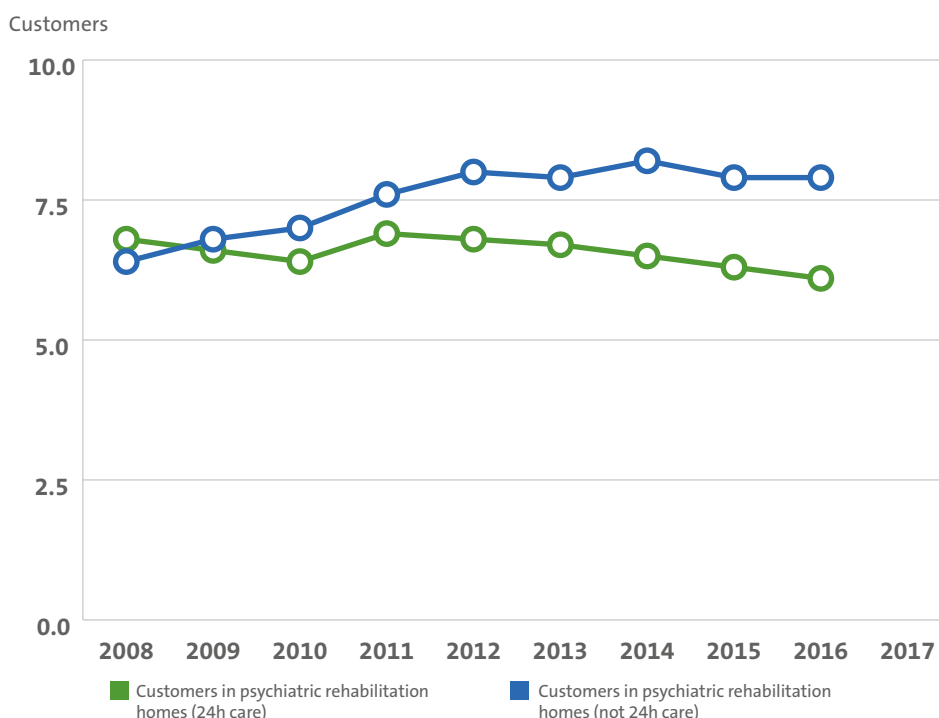
The numbers of patients, treatment days and treatment periods in psychiatric hospital care have been decreasing for several years. However, 2017 is an exception to this trend. The number of patients was 5.4% up on the previous year and the number of treatment periods increased by 4.1%. The number of patients treated in psychiatric hospital care was highest in the 18-24 age group (8 patients per 1,000 residents) and the lowest in the 65 years and over age group (3.3 patients per 1,000 residents). The number of hospital days also differed according to age groups. The number of psychiatric hospital days varies greatly by region.

8.4. Enhanced housing services for mental health rehabilitation are being reduced

Housing services for mental health rehabilitation have been increasingly focused on ordinary serviced housing and enhanced (24-hour care) residential housing services have decreased (Figure 15). However, the number and focus of housing services varies considerably between regions.

FIGURE 15.

Customers in psychiatric rehabilitation homes 2008–2017, customers per 10,000 residents



Private sector and services from non-governmental organisations complement public services

In addition to public services, some of the population is using private sector mental health services. These are funded by occupational healthcare, private medical insurance, Kela's health insurance or by rehabilitation psychotherapy funding, and some are paid for by the customers themselves.

Provision of private services is spread unevenly across the country. For example, 12 per 1,000 of 16 to 24-year-olds and 11 per 1,000 of 25 to 64-year-olds received Kela's rehabilitation psychotherapy, but regional differences were great, 5–18 and 5–14 per 1,000 residents.

NON-GOVERNMENTAL ORGANISATIONS PRODUCE ABOUT HALF OF THE SPECIAL TREATMENT, REHABILITATION, AND HOUSING SERVICES FOR SUBSTANCE ABUSE SERVICES.

Non-governmental organisations' supportive and preventative services complement medical mental health services. Non-governmental organisations and foundations specialising in substance abuse work and the treatment of addicts provide about half of the special treatment, rehabilitation, and housing services for substance abuse services.

8.5. There are significant regional variations in involuntary care

A serious illness can prolong hospitalisation, but a long treatment period can also indicate that there are shortages in outpatient care, rehabilitative housing services or in assisted living services.

There were 0.4 patients per 1,000 residents who spent more than 90 continuous days in psychiatric hospital care (regional variation 0.2–0.8 per 1,000 residents). Patient's new admission into hospital within 30 days of their previous treatment period may reflect problems in the quality of the hospital care and in the integration of hospital and outpatient care.

One in five patients with schizophrenia started

a new treatment period within 30 days of their previous treatment period (regional variation 14–28%). Similarly, about one in five patients with bipolar disorder started a new treatment period within 30 days of the previous treatment period. There were high regional variations (6–23%). The use of involuntary admissions into treatment varied considerably (regional variation 2.6–42%, but the differences may be due to recording practices). There were 1.7 involuntary admission treatment periods per 1,000 residents.

Social services are often needed by the long-term unemployed and for activation of the unemployed. The necessary measures will require a number of providers and overall management and coordination. Customers claiming basic income support for prolonged periods reflects the inadequacy of basic security and the need for social work. In recent years, Finland has made progress in dealing with homelessness.

9.1. There is a need for the integration of services for working-age people

Social services for working-age people are usually implemented in cooperation with employment services, youth services, the Social Insurance Institution, health services, as well as substance abuse and mental health services. Many regions have strengthened and integrated services for working-age people and have cooperated with rehabilitation and employment services.

9.2. More information about social services is needed

There are only a few indicators of working-age peoples' need, availability and use of social services. The national knowledge base for occupational healthcare is also inadequate. Therefore, social services for the working-age population are mainly assessed by means of income support and employment rates.

9.3. Unemployment as part of the need for social services

The proportion of unemployed people in the workforce grew steadily from 2008 to 2016. Since then, unemployment has fallen. In 2017, 11.5% of the population were unemployed, but the proportion of unemployed people varied between the regions from 8% to 15%.

The number of long-term unemployed (for whom it is difficult to find employment) developed similarly to other unemployment rates. In 2008, the proportion of long-term unemployed

in the workforce was around 3%, but by 2017 it had doubled. In 2017, long-term unemployment ranged from just under 4% to 8% between the regions.

YOUTH UNEMPLOYMENT RATE RANGED FROM 9 TO 21% BETWEEN THE REGIONS IN 2017.

In the past 10 years, youth unemployment (18 to 24-year-olds) has increased more rapidly than other unemployment, and differences between regions are also higher. However, in 2017, youth unemployment began to decline. In 2008, 8% of 18 to 24-year-olds were unemployed and in 2017, 14% in the same age group were unemployed. Youth unemployment rates varied considerably between regions. In 2017, youth unemployment rates varied between 9% and 21%.

9.4. Functionality of the workforce and activation measures

The rate of activation of the unemployed refers to the proportion of unemployed job seekers involved in employment services and those entitled to services. A high rate of activation indicates the success of the cooperation between the employment services and social services for working-age people. In the last 10 years, the national rate of activation of the unemployed has varied between 24% and 30%, but no clear trend has emerged. In 2017, the rate of activation varied by region from 25% to 34%.

The euro amount of municipal-funded employment support benefit changed only slightly between 2008 and 2011, but in 2012 it started to grow more sharply and grew even further in 2015. In 2016, however, growth stabilised as the employment situation improved. In 2017, the employment support benefit which is partially funded by the municipalities was on average EUR 78 per resident. The differences between the regions were large (EUR 40-107 per resident).

9.5. Low income and the need for income support

In 2008–2016, the low income ratio had been steadily declining, and in 2017, 12% of the population had low income. In 2016, regional variations were between 10% and 18%. In 2017, regional differences in the proportion of all under 18-year-olds from low income households varied between 5–10%.

IN 2017, 12% OF THE POPULATION HAD LOW INCOME.

The need for basic income support has steadily increased, but between 2008 and 2009, growth was fast (Figure 16). In 2016, the proportion of 25 to 64-year-olds who received basic income support varied by region from about 5% to 8%, but the proportion of young people receiving basic income support varied considerably more. Customer claiming basic income support for prolonged periods reflects the inadequacy of basic security and the lack of integration between multidisciplinary services and services aimed at young people and adults.

Applicants for basic income support are not appropriately directed from Kela to municipal social services. This is evident in a study on income support reform in 2017 (Blomgren and Saikkonen 2018). According to the study, there are big differences between municipalities in how customers are directed to social services and what kind of support and services they receive.

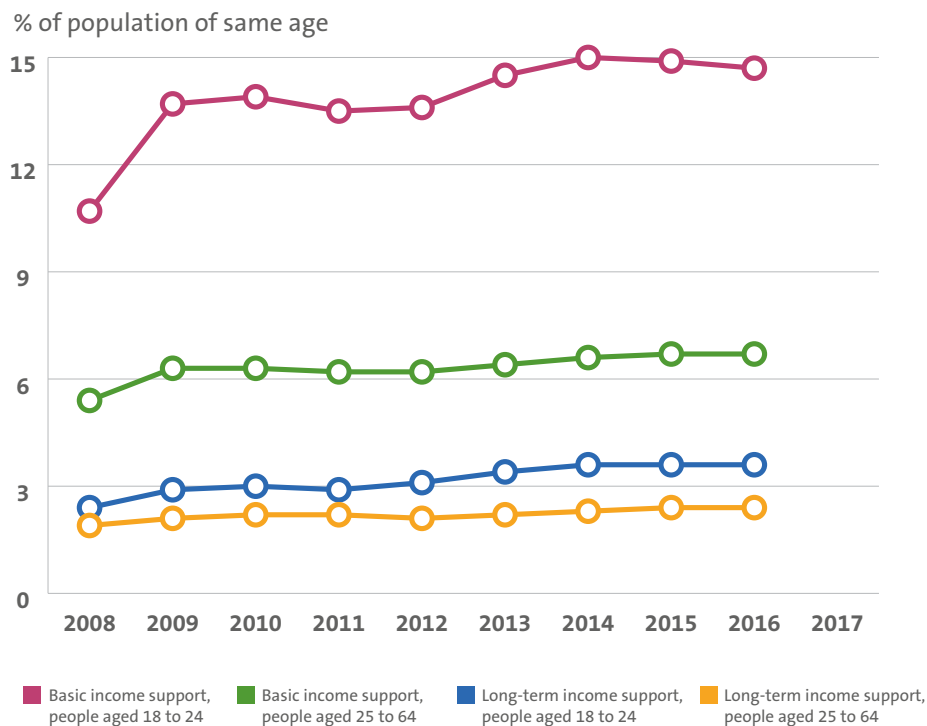
HOMELESSNESS HAS DECREASED IN FINLAND. IN PARTICULAR, THE NUMBER OF LONG-TERM HOMELESS HAS DECREASED COMPARED TO FIVE YEARS AGO

Homelessness has decreased in Finland

Homelessness is concentrated mainly in large cities. However, the number of homeless people living alone has decreased. In 2017, the number of homeless people was approximately one promille of the total population and its prevalence varied by region from 0.1 to 2.9 promille. Although homelessness is growing alarmingly in other European countries, homelessness has fallen in Finland for five years in a row. In particular, the number of long-term homeless people has decreased. (Karppinen 2018.)

FIGURE 16.

Changes in the demand for basic income support in 2008–2016.



The organisation of services for disabled people is based on the concept of universal services for all, supplemented, where necessary, by the Act on Services and Assistance for the Disabled and the Act on Special Care for the Mentally Handicapped. Some of the customers receive a variety of services based on different laws, and information about services is often obtained from different information systems. Currently, no individual level information is available on disability services, which makes the overall assessment of the need and equal access for services difficult.

10.1. Expenditure on services in accordance with the Act on Services and Assistance for the Disabled is increasing

It is estimated that about half a million people in Finland have some form of disability (Koskinen et al., 2012). However, not all of them require disability services. The need for the service is assessed by the amount of disability benefits granted by Kela. In 2017, about 152,000 people received an increased amount or the highest level of disability benefit or pensioners' care allowance (Kela, 2017).

IN 2017, ABOUT 152,000 PEOPLE RECEIVED AN INCREASED AMOUNT OR THE HIGHEST LEVEL OF DISABILITY BENEFIT OR PENSIONERS' CARE ALLOWANCE.

According to the THL survey, there are about 100,000 to 110,000 users of special services for disabled people in Finland (Nurmi-Koilainen, 2013). In Finland in 2017, about 185,000 decisions were made under the Act on Services and Assistance for the Disabled, but one person may have access to several services.

EUR 120 per resident was used for services and financial support under the Act on Services and Assistance for the Disabled (regional variation EUR 78–204 per resident). Compared to 2013, expenditure increased in almost all regions, with an average increase of 27%. Part of the growth could be explained by customers transferring from services provided under the Act on Special

Care for the Mentally Handicapped to services provided under the Act on Services and Assistance for the Disabled.

The transport service which is provided under the Act on Services and Assistance for the Disabled has most customers. In terms of customer accessibility, mobility services form an important service entity. However, the number of customers of the service decreased between 2013–2017. In transportation services, 82% of transport decisions were made under the Act on Services and Assistance for the Disabled and 18% under the Social Welfare Act. In 2017, the cost of transport and financial support services for disability services averaged EUR 28 per resident (regional variation EUR 19–34 per resident).

10.2. The number of people receiving personal assistance has grown significantly

Personal assistance became a subjective right in Finland in 2009, after which the number of customers has increased. Between 2013 and 2017, the number of people receiving personal assistance increased by 42% but the costs increased only by 17%. In particular, the number of customers receiving personal assistance for a few hours a week has increased. In 2016, about half of customers received personal assistance for less than 10 hours a week (Tanhua, 2017). In 2017, there were about 22,000 personal assistance customers.

Severely disabled customers who are entitled to housing services live in either their own home or in another form of housing organised by the municipality, for example, in serviced housing. Housing services include in-home care, family support or personal assistance, or a combination of these services. In 2017, an average of 112 customers per 100,000 residents received housing services for the severely disabled (regional variation 62–195). The number of customers increased by 16% between 2013–2017.

BETWEEN 2013 AND 2016, THE NUMBER OF PEOPLE LIVING IN CARE INSTITUTIONS FOR THE MENTALLY HANDICAPPED HAS DECREASED BY 40%

The goal of the government's 2012 policy decision is that after 2020 no disabled person will live in a care institution. Between 2013 and 2016, the number of people living in care institutions for the mentally handicapped has decreased by 40%. In 2016, the total number of long-term institutional residents was 795. For customers under the age of 18, the situation has not changed significantly.

10.3. Housing services for the mentally handicapped are focused on providing 24-hour assistance and support

Approximately two thirds of customers received housing services where professional help and support is available around the clock (assisted living). 16% received services where assistance and support are available during day and evening but exclude night time care (supported living). 14% of customers who manage fairly independently in

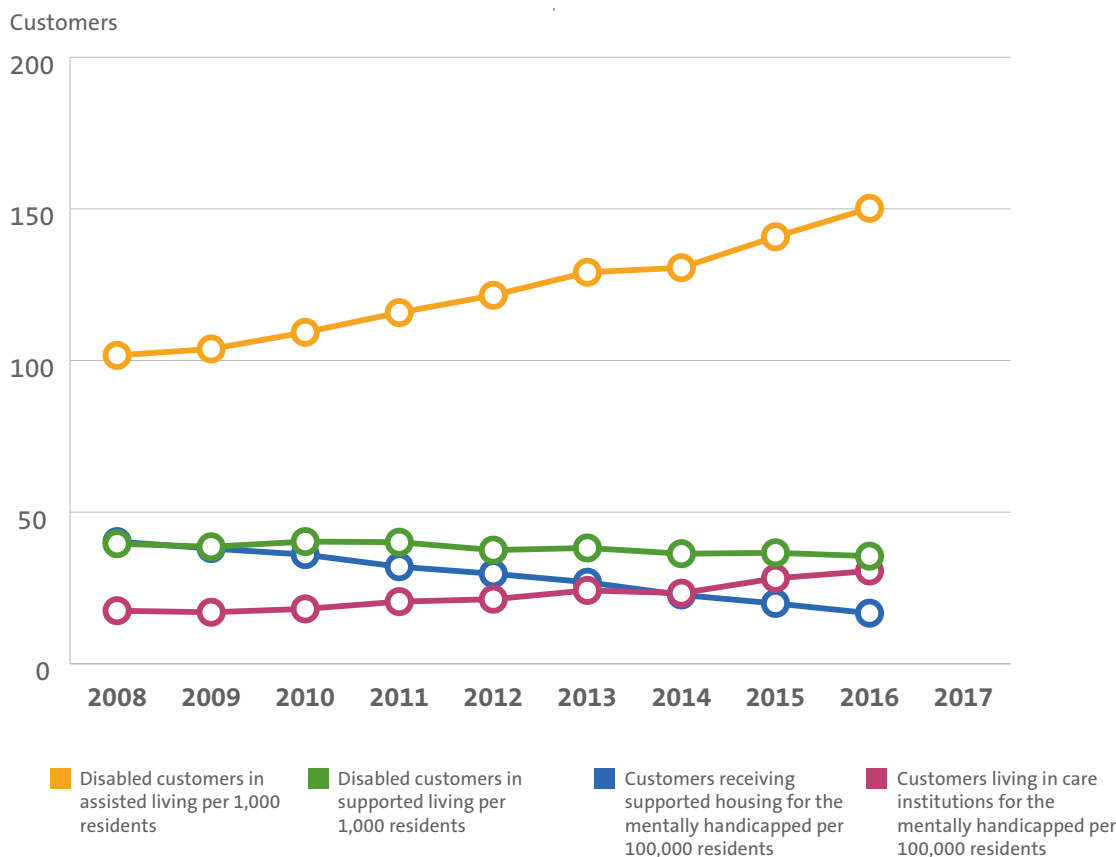
their everyday lives received supported housing services.

OVER TWO THIRDS OF CUSTOMERS RECEIVING HOUSING SERVICES ALSO RECEIVED PROFESSIONAL HELP AND SUPPORT AROUND THE CLOCK (ASSISTED LIVING).

Changes in services are described in more detail in **Figure 17**. 216 out of 100,000 residents received housing services under the Act on Special Care for the Mentally Handicapped, but variations within the country were significant (regional variation 144–418 per 100,000 residents). Based on costs, disabled peoples' assisted living and other disabled services are increasing.

FIGURE 17.

Development of housing services and institutional care for people with intellectual disability in 2013–2017 (customers per 100,000 residents).



Finland's population is ageing and the proportion of people with memory disorders in the population is increasing. At the same time, there are fewer options for long-term institutional care and the focus of care has shifted towards 24-hour assisted housing services. However, within services for the elderly, the proportion of people receiving home care or family care support is still below the national target. Resources for home care have grown, but they are focused on treating people that require the most help. There are fewer people with lesser service needs in home care than before. Elderly patient's visits to specialist medical care accident and emergency departments have also increased. Most units providing home care also provide treatment throughout the night, but only one-third provide palliative care.

11.1. The population of Finland is ageing, developing memory disorders and living alone

The life expectancy of people aged 65 and over has improved and is now 20 years. In 2017, over 9%, or about half a million people were aged 75 or over. Their proportion in the population varies between 7–13% by region. In ten years, the proportion of people were aged 75 and over has increased by 1%, or by about 83,000 people (regional variation 1–2%). The proportion of older people will grow even faster in the coming years. It is estimated that by 2030, the number of people aged 75 and over will be about 300,000 more than at present, which will be about 14% of the population.

THE NUMBER OF ELDERLY PEOPLE IS INCREASING. IT IS ESTIMATED THAT BY 2030 THERE WILL BE 300,000 MORE PEOPLE AGED 75 AND OVER THAN TODAY, ABOUT 14% OF THE POPULATION.

In 2016, the majority of people aged 75 and over, about 91%, lived at home (regional variation 89–93%). The proportion of people living at home has increased by 2% in the last ten years, and about half of them live alone.

The physical performance of the elderly has improved. According to a FinSOTE study, many

80-year-olds have quite good functional capacity, but difficulties with mobility are quite common and accessibility needs in their living environments are high.

Elderly peoples' treatment periods caused by falls have decreased by 4% in the last five years. However, the differences between the regions are high (194–484 per 10,000 residents of the same age). In 2017, the national average for people aged 65 and over was 335 treatment periods.

Memory disorders increase the need for enhanced housing services

Each year 14,500 people develop memory disorders. According to the Alzheimer Society of Finland, over 190,000 people in Finland have memory disorders. Memory disorders also increase the need for enhanced housing services. In 2015, only one fifth of patients receiving regular home care had been diagnosed with a memory disorder.

According to the Elderly Service Act (980/2012), long-term care would be primarily for home care and other social and healthcare services. This is reflected in the service structure changes for people aged 75 and over in 2008–2017. Institutional care has reduced and enhanced housing services have increased. Places for institutional care have been reduced by 1 to 5% in all regions. Long-term institutional care has been almost completely stopped in Finland. The development of the proportion of enhanced housing services varied between the regions from a small decline (-1.6%) to a clear increase (+ 5.3%). The proportion of people receiving regular home care and family care support has remained largely unchanged.

11.2. Regular home care and family care support do not meet the quality recommendations

Service structures for regular home care and family care support have not achieved the quality recommendations that are outlined in the Elderly Service Act. In 2016, 11% of people aged 75 and over received regular home care whilst the target was 13-14%. Correspondingly, less than 5% received family care support when the target was 6-7%.

Of all people aged 75 and over, 13% (regional variation 11-15%) needed a high level of services. A person is deemed to require a high level of services when they receive at least 60 home care visits per month, live in an enhanced housing service home or receive long-term institutional care in a care home or in a health centre ward.

FAST AND SIGNIFICANT STRUCTURAL CHANGES IN ELDERLY CARE: INSTITUTIONAL CARE HAS BECOME ALMOST NON-EXISTENT, AND AT THE SAME TIME ENHANCED HOUSING SERVICES ARE GROWING, AS IS HOME CARE. HOME CARE IS RESERVED FOR PATIENTS WITH THE MOST COMPLEX NEEDS. PATIENTS WITH LESSER SERVICE NEEDS DO NOT RECEIVE MUCH HOME CARE.

The proportion of older people requiring care services has remained unchanged. However, the proportion of people in need of care at home has increased in all regions. Patients in poor health and with increasingly complex needs are cared for at home. In 2017, 20,000 people were regular home care customers. This represents almost

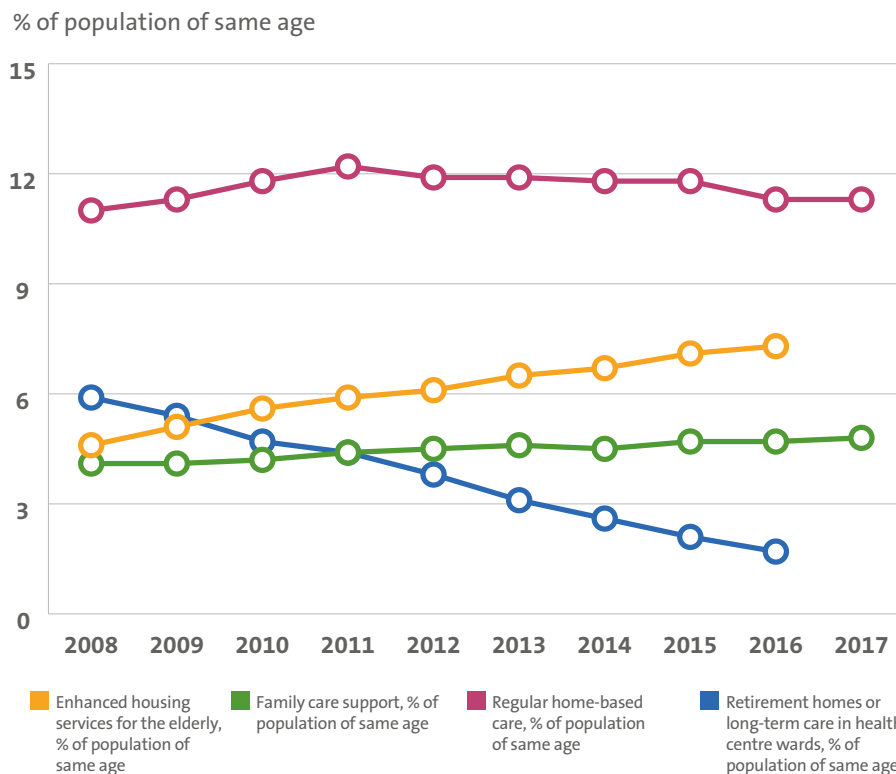
one third of all people requiring nursing care who received intensive home care (at least 60 visits per month) (regional variation 19–43 %). Compared to 2008, the proportion has increased by 9% (Figure 18).

11.3. Elderly people in poor health are being cared for at home

The proportion of people using only small amounts of home care services is decreasing and the proportion of people requiring a lot of care services is increasing. In 2013, 39% of people aged 75 and over receiving regular home care received 1-9 home visits per month. Four years later, in 2017, the proportion had reduced to 32% (regional variation 18-40%). As well as home care, customers can also receive other services such as catering, family care support, and short rehabilitation periods in enhanced housing service units.

FIGURE 18.

Change in the service structure for older people by service in 2008–2017



11.4. The number of nursing staff has increased

Availability of overnight home care has improved. Two out of three home care units offer overnight care on weekdays and weekends (regional variation 40-85%). Growth from 2014 is about 5%. The number of home care staff has also increased by 1,700, but only one-third of the home care units offer palliative care.

Only less than half of the home care units have drawn up a targeted rehabilitation plan for patients, although extensive evaluation of patient performance and functionality has become more common. There are more staff than before in housing units offering 24-hour care. Only 5% of enhanced housing service units fall short of the recommended number of staff, which is 0.50 care workers per patient. (THL, 2018 b).

11.5. Elderly peoples' visits to accident and emergency departments for specialised medical care have increased

Long-term institutional care in Finland has been decreased and older people are treated significantly less in primary healthcare wards.

In 2017, an average of 173 per 1,000 residents aged 75 and over were patients in a primary healthcare ward. This is 23% less than ten years earlier. On average, there were 66% fewer treatment days. In different regions, treatment days decreased by 44-79%. In all regions other than Northern Ostrobothnia, the number of patients fell from 53% to 3%. The number of specialised somatic medical care sessions for in-patient care remained unchanged, but treatment days decreased by 18%. On the other hand, the number of emergency medical care visits for older people increased by an average of 22% in ten years, but in some regions, the number of accident and emergency visits decreased (up to -32%), with the highest peak of 112%.

The costs of housing services and home care are rising

Changes in the service structure are reflected in the costs. In 2017, the net cost of home care per resident was an average of EUR 177 (EUR 133–279 per resident) across the country. Costs have increased by almost 4% from 2015 (-8 to +16%). Costs fell in three regions.

24-HOUR CARE HOUSING COSTS INCREASED BY AROUND 12% IN 2015–2017.

In comparison, the cost of 24-hour care services for the elderly was EUR 294 per resident (EUR 203- EUR 458 per resident). The cost of housing services have increased by around 12% (7–31%) from 2015 onwards. Correspondingly, the per resident cost of institutional care was EUR 75 (EUR 0.4-108 per resident). From 2015, they have decreased by 27% (regional variation -7 to -67%). The range of services for older people is wide and there are many providers. Therefore, it may be difficult to get the right service at the right time. In large parts of the country, advisory and customer guidance units make the situation easier, but most of them (63%) only operate in one municipality. As a result, the criteria for making services available for older people may differ within the region.

References

Indicator data used in the evaluation <http://proto.thl.fi/tietoikkuna>

Decree on division of labour in specialised medical care and centralisation of certain tasks (582/2017) [In Finnish].

Decree on basics of emergency care and special conditions for emergency care (583/2017) [In Finnish].

Blomgren, S. & Saikkonen, P. (2018) Improvements to the last-resort social security measures: the results of a municipal survey on the income support reform. Summary of research 12, May 2018 [In Finnish]. National Institute for Health and Welfare Helsinki, Finland.

Finnish Centre for Pensions (2018) Finland's Employment Pensions 2017. Centre for Pensions Statistics 07/2018 [In Finnish]. Official Statistics of Finland. Juvenes Print – Suomen Yliopistopaino Oy, Tampere.

Eurostat. Online source: <https://ec.europa.eu/eurostat/data/database> [Read 18.2.2019]

Heino, T., Forsell, M., Eriksson, P., Känkänen, P., Santalahti, P. & Tapiola, M. (2018). Customers of child protection, child psychiatry and youth psychiatry - a shared responsibility. Support for decisions 50/2018 [In Finnish]. National Institute for Health and Welfare.

Huikko, E., Kovanen, L., Tornainen-Holm, M., Vuori, M., Lämsä, R., Tuulio-Henriksson A. & Santalahti, P. (2017) Study on the service system for treatment and rehabilitation for mental health disorders in children aged 5-12 in Finland. Report 14/2017 [In Finnish]. National Institute for Health and Welfare.

Regional Hyte preparations in November 2018 [In Finnish]. Online source: <https://www.innokyla.fi/documents/6321574/8c00e522-b2fc-4ba5-95be-29924d4090f8> [Read 13.2.2019].

Inchley, J., Currie, D., Young, T., Samdal, O., Torsheim, T., Augustson, L., Mathison, F., Aleman-Diaz, A., Molcho, M., Weber, M. & Barnekow, V. (2016) Growing up unequal: gender and socioeconomic differences in young people's health and well-being. Health behaviour in school-aged children (HBSC) study: International report from the 2013/2014 survey. Health policy for children and adolescents, no. 7. World Health Organization.

Karppinen, J. (2018) Varmista asumisen turva! Action Program on Homelessness Prevention (AUNE) Interim Report [In Finnish]. Ministry of the Environment 2018.

Kela (2017) Disability benefit statistics 2017 [In Finnish]. Official Statistics of Finland.

Koskinen, S., Lundqvist, A. & Ristiluoma, N. (ed.) (2012) Health, Performance and Well-being in Finland 2011. National Institute for Health and Welfare (THL) – Report 68/2012 [In Finnish]. National Institute for Health and Welfare.

Classification of healthcare services 2008, Act on supporting the functional capacity of the older population and on social and healthcare services for older people 980/2012 [In Finnish].

Lankila, T., Kotavaara, O., Antikainen, H., Hakkarainen, T. & Rusanen, J. (2016) Social and Healthcare network development 2025 - spatial and accessibility based review [In Finnish]. University of Oulu, Geosciences Research Unit. Sitra, Helsinki.

The Finnish Medical Association. Doctor workforce [In Finnish]. Online source: www.laakariliitto.fi/tutkimus/laakarityovoima/ [Read 13.2.2019]

Regional financial calculations [In Finnish]. Online source: www.alueuudistus.fi/maakuntien-rahoituslaskelmat [Read 22.2.2019].

The Alzheimer Society of Finland. Memory disorders [In Finnish]. Online source: www.muistiliitto.fi/fi/muistisairaudet [Read 18.2.2019]

Nurmi-Koikkalainen, P. (2013) From an institution to a local community - municipal survey results of services for disabled residents. National Institute for Health and Welfare (THL) – Report 26/2013 [In Finnish]. National Institute for Health and Welfare.

OECD/EU. Health at a Glance: Europe 2018: State of Health in the EU Cycle, Paris, OECD Publishing.

Parhiala, K., Hetemaa, T., Sinervo, T., Nuorteva, L., Luoto, E. & Krohn, M. (2016) Arrangements for outpatient healthcare in health centres 2015. Summary of research 7 May 2016 [In Finnish]. National Institute for Health and Welfare Helsinki, Finland.

Pentala-Nikulainen O., Koskela, T., Parikka, S., Kilpeläinen, H., Koskenniemi, T., Aalto, A-M., Muuri, A., Koskinen, S. & Lounamaa, A. National Health, Well-being and Service Survey FinSote basic results 2017-2018 [In Finnish]. Online source: www.thl.fi/finsote [Read 18.2.2019].

Puustinen-Korhonen, A. (2018) Child protection municipal survey [In Finnish]. Association of Finnish Local and Regional Authorities.

Rusanen, J. & Kotavaara, O. Better knowledge base and optimisation of services to support the social and healthcare service restructuring (IMPRO) project. Unpublished material, published with consent [In Finnish].

Ministry of Social Affairs and Health (2018) Memorandum: The regions' readiness for implementation, the compilation of the results of the surveys 19 June 2018 [In Finnish]. Online source: www.alueuudistus.fi [Read 13.2.2019]

Tanhua, H. (2017). Disability Services 2016 - Municipal Survey Sub-Report. Statistical report 34/2017, 25 February 2019 [In Finnish]. National Institute for Health and Welfare.

Health Care Act 2010/1326 [In Finnish].

THL (2018a) Alcohol and drug statistical yearbook 2018 [In Finnish]. Alcohol and drugs. Official Statistics of Finland. Social Security 2018. National Institute for Health and Welfare.

THL (2018b) Elderly services status survey 2018 [In Finnish]. Online source: <https://www.slideshare.net/THLfi/vanhuspalvelujen-tila-2018> [Read 13.2.2019]

Statistics Finland (2019) Municipal Economy 2017 [In Finnish]. Official Statistics of Finland.

Tuulio-Henriksson, A. & Blomgren, J. (2018) Mental Health Sickness Periods 2005–2017. Working papers 136/2018 [In Finnish]. Kela.

The Ministry of Finance (2018) A snapshot of the regional preparations for SOTE reform, autumn 2018 [In Finnish]. Online source: www.alueuudistus.fi [Read 13.2.2019]