Community health monitoring tools. Case study from Norway

I. Context

Quality of care and health care delivery are closely monitored in Norway. The annual collection of some 174 indicators across different levels of care provides valuable information on how quality of care is developing over time (The Organisation for Economic Co-operation and Development 2019). The quality indicator system is intended to help secure the population equal access to high-quality health services. The indicators are based on the framework of the The Organisation for Economic Co-operation and Development (OECD)'s Health Care Quality and Outcomes Programme (Norwegian Directorate of Health, 2020).

Norway has a total of 53 national quality registries, 31 of which are within primary health care. In 2016, the Ministry of Health and Care Services included patient-reported experience measures (PREMs) and patient-reported outcome measures (PROMs) in these registries. Currently, a total 26 registries collect PROMs and 13 collect PREMs data. Norway has also decided to take part in the OECD-led Patient-Reported Indicator Surveys initiative (PaRIS survey). More broadly, Norway was one of the first countries to launch initiatives to promote people-centred care. Nationwide studies have focused on promoting meaningful dialogue between patients and providers since the early 2000s (The Organisation for Economic Co-operation and Development, 2019).

Compared with specialised areas, monitoring of the quality of the primary health care services is relatively underdeveloped in Norway (Larsen T.A., Klausen M.B, Høigaard B., 2020).

II. Health priorities planning

There are several national health plans and strategies which set out the direction and establish priorities for the municipal health and care sector. These are described in this chapter. The municipalities are tasked with putting them into practice. The plans and strategies are updated, revised and/or followed up annually.

The municipalities also have their own plans, through which the central government's plans are either directly or indirectly operationalised. This can be done in the municipal master plan's social section and in the budget and the finance plan. In addition, some municipalities have their own competence plans for the health and care services, along with plans to meet future health and care challenges.

The National Health and Hospital Plan 2020–2023

The National Health and Hospital Plan 2020–2023 sets out the direction for the development of the specialist health service and the interaction with the municipal health and care services during the period covered by the plan. The aim is to ensure that the health service is both sustainable and patient-centred. Patients should have equal access to high-quality health services, regardless of where they live. Patients and their relatives should experience predictability, reassurance and continuity, and know that high-quality professional help is readily available. They should also know how they can access such help.

Limited access to health workforce in particular will restrict the manner in which we are able to accomplish tasks. A sustainable health service therefore requires us to utilise the opportunities provided by technology, make maximum use of the expertise of our employees and accomplish tasks as efficiently as possible (Norwegian Ministry of Health and Care Services, 2020).

Competence Lift 2025

Competence Lift 2025 (*Kompetanseløft 2025*) is the central government's plan for recruitment, competence and professional development within the municipal health and care service and the county dental health service. The aim of Competence Lift 2025 is to help ensure that the services are professionally strong, and that the municipal health and care services and county dental health service have sufficient suitability qualified staff.

Competence Lift 2025 is an instrument in the work to develop future-proof and user-oriented health and care services. Amongst other things, the government will promote the ability of the municipalities to adapt and improve quality levels within the health and care services, increase availability and capacity, enhance the quality of the health and care services, particularly for users with comprehensive needs, promote good health and quality of life, and reduce social inequalities within health.

Competence Lift 2025 will also provide direction as regards strategic competence planning, both regionally and locally. Many stakeholders will need to work together in order to achieve the goal of Competence Lift 2025. Municipal and county health and care services must be executive competence organisations, which must be developed to address new tasks and future challenges. The strategies in Competence Lift 2025 should therefore ideally be incorporated into county and municipal competence plans. Many initiatives include the municipalities to ensure that the goals during the Competence Lift's 2021–2025 planning period can be achieved.

Competence Lift 2025 is based on a scenario of challenges, where the health and care services are affected by a shortage of health and social care workforce, a lack of expertise and an inadequate knowledge base, insufficient user involvement, multidisciplinarity, collaboration and interaction, as well as weaknesses in the management and the planning and organisation of the services. However, this challenge scenario also offers opportunities for development which could contribute to attainment of the goals for Competence Lift 2025. Competence Lift 2025 is based on the positive experiences of Competence Lift 2020 (Norwegian Ministry of Health and Care Services, 2021).

"A full life – all your life"

Another plan is "A full life – all your life". All older persons should be able to continue enjoying their daily lives, even when health issues arise and they are in need of public services. Local communities have developed good solutions to ensure this. However, not all of these good solutions are utilised by municipalities, and some are only used on a random basis. Services are therefore not always adequate, and the quality of services provided for older persons may vary. The Live Your Whole Life reform comprises 25 specific and tested solutions in areas where services for older persons are considered to be inadequate.

During the first phase of the reform process, the municipalities will map, analyse and identify their own challenges and needs. (Examples of questions include: Who are the elderly in the municipality? What types of services are provided for them today? What are their needs, both current and in the future? What resources do they have?) The municipalities can get an overview, analyse the situation and make plans by obtaining facts and statistics from their municipality via a portal[1].

Municipalities that restructure their services to accommodate the reform will be prioritised for both relevant existing programmes and more recent earmarked programmes. The reform period began in 2019, with a duration of five years and encompassing different stages for planning, implementation and evaluation.

The aim is for municipalities to learn from each other and inspire each other through participation in learning networks. In order to set the process in motion and ensure that the solutions are distributed across the country and systematised and utilised by all municipalities, the government has set up a national and regional support network for the reform period.

[1] ressursportalen.no

The intention is for this support network to guide and assist municipalities with the planning, design and implementation of the reform in the local community. (Norwegian Ministry of Health and Care Services, 2018).

III. Population health monitoring

The use and further development of the Norwegian Registry for Primary Health Care (NRPHC) is pivotal. NRPHC was established by the government in 2017 to increase knowledge regarding the municipal health and care services and the county dental health service. NRPHC is intended to be a data source which is used for research, quality assurance, planning and management. The first version of the registry became available in the spring of 2018. NRPHC currently contains data from existing registries (Control and Payment of Health Refunds - KUHR and Individual-based Statistics for Nursing and Care Services - IPLOS). However, in the longer term, it will constitute a comprehensive registry for the municipal health and care services. During 2022, data from the health centres and dental health services will also be reported to NRPHC.

The municipalities need good management data and the Norwegian Directorate of Health needs to monitor developments amongst the various services. It is therefore important to further develop the Registry for Primary Health Care (NRPHC), so that ongoing data can be extracted from the municipal health and care services. Municipalities must have better access to their own data and good statistics which show, for example, developments in the services aimed at different user groups, and which are perceived to be useful for the municipalities. A further developed NRPHC will provide a better basis for research and analyses concerning the services.

HUNT is a major Norwegian population-based health survey which includes health data and biological material from the inhabitants of the county of Trøndelag. The survey is the largest of its kind in Norway and has been conducted since 1984. Data has been obtained through four population surveys, and the survey also includes a separate youth survey. A total of approximately 150,000 people have consented to de-identified health data being made available for approved research projects, and more than 100,000 people have provided blood samples. This makes HUNT an important collection of health data and biological material, in both a national and an international context. Data from HUNT is used for many research projects within a wide range of disciplines relating to disease and health. Many HUNT projects concern the greatest health challenges in the population, both today and in the near future (Norwegian University of Science and Technology, w.y).

IV. Activity monitoring

Municipal State Reporting (KOSTRA) provides information on most municipal and county council activities. Data for KOSTRA is primarily reported either via forms from the municipal and county authorities or via extraction from the administrative systems used by the services. The key figures and basic data are intended to help give inhabitants, the media, the municipal sector itself, central government and others a source of information regarding most services provided by municipal and county authorities. This information is also intended to contribute to openness and transparency, and to provide an opportunity to improve services in the municipal sector (Norwegian Government, 2019). In addition to health, finance, schools, culture, environment, social services, public housing, technical services and transport and communication are covered. Reported data is published on Statistics Norway's website for KOSTRA annually (Statistics Norway, 2021). KOSTRA offers enormous opportunities to extract qualitative management information.

Statistics Norway publishes the figures, both as absolute figures (e.g. the number of nursing home places in the municipality), and as ratios (e.g. the cost of providing a nursing home place in my municipality). The ratios provide an indication of productivity, prioritisation and coverage in the service areas. The figures also include services that are provided through municipal/county enterprises and inter-municipal cooperation. Reports prepared by the municipalities

concerning the health and care services for KOSTRA include information on, amongst other things, users of nursing homes, home care services, health centres and other care services, capacity and resource input (e.g. number of places), health workforce, and accounting figures(Norwegian Statistics 2020).

Municipalities - Data is published for all the municipalities, including average figures for groups of municipalities, county councils and the country, both with and without Oslo. County councils - Data is published for all the county councils, including average figures for the regions and the country, again both with and without Oslo. Boroughs - Data is published for all of Oslos boroughs, including their average figures (Norwegian Statistics 2021).

The Norwegian Registry for Primary Health Care (NRPHC)

The Registry for Primary Health Care (NRPHC or *Kommunalt pasient- og brukerregister* (KPR) in Norwegian) was established through a regulation in 2017 and is under development. The aim of the registry is to provide a basis for research, quality assurance, planning and management of the health and care services (Norwegian legislation 2017).

Overall, the data in NRPHC provides an overview of the needs, services and clinical picture of the population in the municipality. Through processing, compilation with other sources and analyses, this provides a factual basis for roadmap choices and priorities for the development of health and care services.

NRPHC will be developed in stages and will come to contain data from all services that are referred to in the Act on Municipal Health and Care Services (Norwegian legislation 2011). The Regulation relating to the Norwegian Registry for Primary Health Care stipulates what information can be registered (Norwegian legislation 2017).

The registry will contain selected data from all municipalities in Norway regarding persons who have requested, are receiving or have received health and care services. This includes information about services received (incl. GPs), housing situation, function and some information about how the services are provided, further information about consultations, check-ups and treatment.

There are currently two data sets in NRPHC. One data set concerns health and care and one concerns GPs, out-of-hours care, physiotherapy, etc. (selected information from the Control and Payment of Health Refunds (*KUHR - Kontroll og Utbetaling av Helserefusjoner*). Two further data sets are also under development. These concern the health centre and the school health service, and the dental health service which will be in place in 2022.

Control and Payment of Health Refunds (KUHR) is a system which handles reimbursement claims from treatment providers and health institutions to the central government (HELFO). The system is owned by the Norwegian Directorate of Health. To ensure that the patient does not have to pay for the service first and then claim back the money, invoices are sent directly to the state. These invoices form the basis for the information that is stored in KUHR.
KUHR contains information about treatment providers, patients, rates, user fees, etc. Continuous reports are submitted and selected information is then transferred to NRPHC.

Data about the health and care services provides information about users and the services they have received. Relevant services are: healthcare services in the home (for those living at home, incl. services provided outside the home), institutional services, practical assistance, practical assistance training, support contact, allocated housing. In addition, other information which is reported includes whether the person has been assigned a coordinator in the municipality,

whether there is an individual plan, along with information about the person receiving services, such as function, care for children, diagnosis, etc. For more detailed descriptions, see footnote [2].

Norwegian Patient Registry (NPR)

The Norwegian Patient Registry is a central health registry which contains health information about all persons who have received treatment, or who are waiting for treatment from the specialist health service at hospitals, outpatient clinics or contract specialists. NPR was established in 1997. The purpose is:

- to provide a basis for the administration, management and quality assurance of specialist health services.
- to contribute to medical and healthcare research concerning health services, treatment effects, diagnoses and causes of disease, distribution and development and preventive measures.
- to provide a basis for the establishment and quality assurance of disease and quality registries, and to disseminate contact details for the national summary care record.
- to contribute to knowledge which prevents accidents and injuries.

Data is not reported by the municipalities, but it is available at municipal level (Norwegian Directorate of Health services, w.y).

V. Quality and performance monitoring

Management data is used by the municipalities in connection with both long-term service development and the annual budget processes. This is compared over time both within specific municipalities and across comparable municipalities. With the aid of information concerning inhabitants' needs regarding services and knowledge of their own activities, municipalities can define the right measures and establish priorities. Comparing services between municipalities can provide a basis for greater equal treatment across municipal boundaries and better coverage of needs.

The municipalities follow the "Regulations relating to management and quality improvement in the health and care services", which set out requirements concerning a systematic approach to quality improvement and patient safety. The regulations clarify the municipal management's responsibility to ensure that management systems are established which encompass how the organisation's activities are planned, executed, evaluated and corrected in accordance with the requirements laid down in or pursuant to the health and care legislation. A guide has been prepared for the regulations (Norwegian Directorate of Health 2017). Management data is important to enable the municipalities to follow up the requirements laid down in the regulations.

National quality indicators are based on one or more of the dimensions of quality, based on "The quality strategy – And better it will be...!" The strategy was launched by the Directorate of Health in 2005 (Norwegian Directorate of Health 2005). A total of 23 indicators have been developed for the municipal health and care services. These include an indicator for day activity services for people with dementia, nutritional follow-up amongst persons living at home, absence due to sickness amongst the municipal health and care services and nursing home residents assessed by a doctor during the past 12 months.

[2] See the HRR metadatabase for a more detailed description of the content of the data set in NRPHC, and Statistics concerning health and care services in NRPHC and Statistics concerning general practitioner services - Directorate of Health.

A quality indicator is an indirect measure that provides information on the quality of health and care services in the municipalities and the specialist health service (Directorate of Health Services 2021). The national quality indicator system is intended to help secure the population equal access to high-quality healthcare, and is based on the framework for the OECD's Health Care Quality and Outcomes programme (European Observatory on Health Systems and Policies 2021). It is an overarching goal to develop quality indicator so that it can be used for political governance and objective comparisons at local, regional and national levels. National quality indicators results are discussed in the annual white paper on quality and patient safety. The purpose of these annual white papers is to promote greater transparency and focus attention on quality and patient safety in both national and local health policy. The national quality indicators serve a number of purposes. They are intended to:

- Provide central health authorities with a sound basis for prioritisation and management.
- Provide owners and managers at all levels of the health and care services with a basis for using the results for local quality improvement.
- Give patients, users and relatives the opportunity to make choices based on concrete information.
- Contribute to transparency regarding quality and variation in the health and care services.

Quality indicators can be a tool for improving patient safety, service quality and the implementation of national guidelines. This can be illustrated through an indicator which is included in Norway's national guidelines on the prevention and treatment of malnutrition for nursing home residents and for recipients of health care at home, aged 67 years and older. The prevention of malnutrition in the elderly is a national priority area, partly through the National Patient Safety Programme in Safe Hands 24-7 (2014-2018)[3] and through the quality reform for the elderly - Live your whole life. The indicator is important in the monitoring of malnutrition status in the municipalities.

For this indicator, data is collected by the Directorate of Health and the Norwegian Registry for Primary Care (NRPHC). Statistics Norway (SSB) is the controller as regards the data. Individual-based data is sent to NRPHC and SSB by the municipalities annually. Reporting to NRPHC is mandatory for the municipalities. The indicator measures whether nutritional risk has been assessed during the past 12 months for nursing home residents and for recipients of health care at home, aged 67 years and older. The indicator for nutritional risk is triggered if the answer to one of the following questions is "yes": low body mass index (less than 22), involuntary weight loss or low nutrition intake during the last month.

National data from the first year of data registration shows that 50.5 percent of nursing homes residents have been screened. Of these, 36.1 percent are at nutritional risk and 70.7 percent of them have an individual nutrition plan. 16.7 percent of recipients of home health care have been screened. Of these, 26.1 percent are at nutritional risk. Of these in turn, 51.7 percent have an individual nutrition plan. There are enormous variations between municipalities (Norwegian Directorate of Health, 2020). Many municipalities also participate in regional learning collaboratives to improve the prevention and treatment of malnutrition.

The national quality indicator is an example of data that municipalities use to understand the challenges being faced in their municipality.

Publication of such indicators can also help to improve registration practices and reporting of data from municipalities, and will eventually provide a more accurate picture of nutritional care at municipal level. Publication also contributes to a stronger focus on the importance of nutritional follow-up. However, the results must be interpreted with caution. Differences may mainly stem from underreporting, real differences between the municipalities and technical errors, and shortcomings in the municipalities' administrative systems.

[3] Pasientsikkerhetsprogrammet I trygge hender 24-7 - regjeringen.no

VI. Health workforce monitoring

Health workforce monitoring takes place through KOSTRA and Statistics Norway's health workforce statistics. The statistics cover municipality, county and national levels. For the specialised services the statistics are at health region and health trust level Statistics at municipal and county level are published in StatBank Norway and KOSTRA. See the information about KOSTRA in Chapter 6. Statistics at national level are published in Today's statistics (Norwegian Statistics 2021B).

The statistics show the number of people with a health care education and the number of employees with such an education during the fourth quarter. In addition, employees in the health and social services in the fourth quarter who do not have a health care education are also included in the statistics (Norwegian Statistics 2021B).

Health care education is a selection of education codes from Statistics Norway's Standard for Classification of Educations. In addition, the Health Personnel Registry requiring authorisation, administered by the Directorate of Health, is used to define health care educations. The statistics provide information on 33 separate educations, three specialisations and for the three aggregated groups for small health education types. For educations that are not within health care, there are four aggregated groups (Norwegian Statistics 2021B).

As part of the directorate's annual advice to the Ministry of Health and Care Services on educational capacity for higher health educations, the number of newly graduated candidates, employment, demand et cetera are monitored.

The directorate is also closely monitoring the development in the general practitioner services to see if the government's action plan for the GP services is effective, with status reports published quarterly and annually.

The Norwegian Directorate of Health is currently establishing a system for monitoring access to and the need for nurses amongst the health and care services. A range of indicators have been established which should be monitored in order to monitor access and demand. We use indicators and statistics which shed light on developments in completed studies, full-time equivalents, external turnover, advertised positions, projected supply and demand, estimated shortages, recruitment challenges, etc. In addition to providing a basis for the directorate's analyses of the situation, the statistics will also be published so that others can use the data, and the directorate encourages the health and care services themselves to use the data in their planning processes.

VII. Incentives to good performance

Health care workers in the public health care sector are salaried public sector employees. The majority of general practitioners (GPs) are self-employed, but they are fully integrated in the public system through contracts with the municipalities (OECD, 2019). GPs receive their revenues via an annual basic grant. They also receive activity-based income through government reimbursements and patients' user fees (The Norwegian Association of Local and Regional Authorities, 2021).

The municipality can organise the physiotherapy service either by appointing physiotherapists to municipal positions or by entering into an operating agreement with self-employed physiotherapists (Norwegian government, 2021).

Municipal health and care services are mainly framework-funded. It is assumed that framework funding of municipal tasks results in the most cost-effective utilisation of resources by giving municipalities the opportunity to assess for themselves the needs of their inhabitants and determine how the municipality's overall tasks should be performed. Proximity to the decision-making process also gives inhabitants the opportunity to influence local services and priorities. However, in some cases, the

central government contributes earmarked grant funding in areas that are not covered by municipal funds or for tasks which the central government believes must be prioritised (The Norwegian Association of Local and Regional Authorities, 2021).

VIII. Patient satisfaction

Every two years, Norwegian residents are asked for their views of many public services at municipal and national levels and what it is like to live in Norway in general and their municipality in particular. This survey includes questions about citizens' experiences of public services. Within the field of health, the survey includes questions concerning experiences of using a GP, an out-of-hours medical service, nursing home, health centre and health and care services in the home (Norwegian Agency for Public and Financial Management, 2021).

Many municipalities regularly conduct user and next of kin surveys covering both the home care services and nursing homes. There are currently no detailed national user and next of kin surveys. Every year, the municipalities submit a report explaining whether they have a system in place for user surveys for the home care services and/or institutions in KOSTRA. There are therefore overviews of the municipalities that have systems in place, and therefore also of the proportion of municipalities which have such systems. Municipalities can use a system for user surveys[4].

The Norwegian Directorate of Health has issued recommendations regarding how user and next of kin surveys for municipal health and care services can be conducted[5].

In 2018, a national user and next of kin survey was conducted based on a questionnaire in bedrekommune.no. The results of the pilot showed that one generic survey that is intended to embrace very different user groups is unsuitable for use as a tool for producing robust results which are sufficiently relevant to local improvement work, comparisons between municipalities and national governance. A solution involving a set of surveys which are adapted to the various user groups and service locations, as in bedrekommune.no, may be better suited to local improvement work and make it easier to adapt the content and format to the various user groups (Norwegian Directorate of Health Services, 2019).

In order for the surveys in bedrekommune.no to provide national figures, three major challenges must first be overcome: (i) Conducting the surveys is voluntary for the municipalities, (ii) Implementation is resource-intensive for municipalities because many need help in order to respond. This requires municipalities to establish an apparatus to help those who are unable to respond themselves, (iii) The various municipalities solve the task in different ways even though the pilot and bedrekommune.no outline good ways of doing this in their guidance material.

A new national next of kin survey was conducted in 2020. The survey involved 3,000 quantitative interviews with next of kin, as well as 25 in-depth interviews concerning the life situation and quality of next of kin, as well as experiences in their encounters with the health and care services. In-depth interviews were conducted with the next of kin of four main groups; next of kin of persons with a drug addiction and mental illness, next of kin of persons with developmental disabilities and/or disabilities, next of kin of children in need of extensive and/or complex services, as well as next of kin of persons who were impaired as a result of age and/or chronic illness. (Opinion 2021). Conducting user and next of kin surveys which offers benefits at both local and national levels represents a challenge. The Norwegian Directorate of Health will continue to work on the issues going forward.

[4] Cover page | Bedrekommune

[5] Report 2016: "Development of national user and next of kin surveys. Municipal health and care services

IX. Health workforce satisfaction

Information about health worker satisfaction is not collected at national level. Health workers regularly report satisfaction with their job. However, this information is used by the employers only. Workers' associations, such as the Norwegian Nurses Organisation, recently conducted a survey amongst some of their members concerning working conditions amongst health workers involved in the provision of primary health care. The survey showed that an alarmingly high number of nurses (three in four) reported having considered changing or leaving their job during the past year. Of those who considered leaving their job, the most important reasons given were inadequate staffing levels and dissatisfaction with salary, along with mental and physical stress. Amongst those who did not consider leaving, the main reasons given were satisfaction with the working environment, the ability to choose the number of hours they worked per week, and travel time. It is important to note that the survey was too small to be representative (Norwegian Nurses Organisation, 2021).

X. Recommendations

In order to monitor and evaluate Norwegian health services, we are entirely dependent on having good data. The most important sources for information at municipal level are NRPHC and KOSTRA. The data in these registries is considered to be of good quality. Nevertheless, municipalities must have better access to their own data and better statistics which show, for example, developments in the services aimed at different user groups, and which are perceived to be useful for the municipalities. Efforts are thus being made to further develop NRPHC to provide the municipalities with a better basis for working on the quality and development of the services, as well as for research and analysis purposes.

The key figures and basic data in KOSTRA are intended to help give inhabitants, the media, the municipal sector itself, central government and others the opportunity to obtain information about most services provided by municipal and county authorities. This information is also intended to contribute to openness and transparency, and to provide an opportunity to improve services in the municipal sector. However, there is potential for improvement in this regard, in terms of both improving KOSTRA and ensuring that municipalities make greater use of the data that is available to improve health services.

References

Abelsen B., Godager G and Hagen T.P. (2021). *Financing general practitioners arrangement. Report 2021:2.* The Norwegian Association of Local and Regional Authorities (KS). Available from Finansiering av fastlegeordningen.

Larsen A.T., Klausen M.B., Højgaard B. (2020): *Primary Health Care in Nordic Countries.* The Danish center for Social Science Research. Primary Health Care in the Nordic Countries – Comparative Analysis and Identification of Challenges (vive.dk)

Norwegian Directorate of Health. (2017). *Management and quality improvement in the health and care service*. Available from Ledelse og kvalitetsforbedring i helse- og omsorgstjenesten - Helsedirektoratet.

Norwegian Directorate of Health. (Withou year). *Norwegian patient registry*. Available from Norsk pasientregister (NPR) - Helsedirektoratet.

Norwegian Directorate of Health. (2020). *Nutritional follow-up of nursing-home residents*. Available from Ernæringsoppfølging hos sykehjemsbeboere - Helsedirektoratet.

Norwegian Directorate of Health Services. (2019). *Pilot for a national user survey for the health and care services.* IS-2871. Available from Hdir_Rapportmal 15.11.18 (helsedirektoratet.no).

Norwegian Directorate of Health. (2005). *The quality strategy – And better it will be...!* Available from SFK_ogbedreskaldetbli_v9.indd (helsedirektoratet.no).

Norwegian Directorate of Health (2021): Annual report 2020. National quality indicator system. (IS-2989). Årsrapport for NKI 2020.pdf (helsedirektoratet.no).

Norwegian Government (2021). *Public physiotherapy service*. Available from Offentlig fysioterapitjeneste - regjeringen.no.

Norwegian Government (2019). *Municipal State Reporting* (KOSTRA). Available from KOSTRA - regjeringen.no.

Norwegian legislation (Lovdata) (2011). *Legislation about municipal health services*. Accessed 03.11.2021 from Lov om kommunale helse- og omsorgstjenester m.m. (helse- og omsorgstjenesteloven) - Lovdata.

Norwegian Legislation (Lovdata) (2017). *The Norwegian Registry for Primary Health Care (NRPHC).* Accessed 03.11.2021 from Forskrift om kommunalt pasient- og brukerregister (KPR) - Lovdata.

Norwegian Ministry of Health and Care Services (2021). *Action plan competence lift 2025*. Available from Handlingsplan Kompetanseløft 2025.

Norwegian Ministry of Health and Care Services (2020). *National Health and Hospital Plan 2020-2023.* Available from National Health and Hospital Plan 2020-2023.

Norwegian Ministry of Health and Care Services (2018*). A full life – all your life*. Available from A full life – all your life.

Norwegian Nurses Organisation, 2021. *Why three in four nurses consider leaving their job during the past year*. Derfor vurderer 3 av 4 sykepleiere i kommunene å slutte.

Norwegian University of Science and Technology (without year). *HUNT Health assessment Trøndelag*. Accessed 12. November 2021 from HUNT - Helseundersøkelsen i Trøndelag - NTNU and Om HUNT - Helseundersøkelsen i Nord-Trøndelag - NTNU.

Opinion (2021). *National next of kin survey.* Available from Nasjonal pårørendeundersøkelse Opinion 2021 for Helsedirektoratet.pdf.

Statistics Norway (SSB), (2020): *Guidance to KOSTRA-numbers*. Veiledning til KOSTRA-tabellene - SSB.

Statistics Norway (2021). *KOSTRA – Municipality – State- Reporting*. KOSTRA - Municipality-State-Reporting (ssb.no).

Statistics Norway (SSB) (2021B): *Health care personell statistics*. Available from *Health care personnel statistics*.

The Norwegian Agency for Public and Financial Management/DFØ, (2021). *The population survey*. Available from https://dfo.no/rapporter-og-statistikk/undersokelser/innbyggerundersokelsen-2021/a-bo-i-kommunen.

The Organisation for Economic Co-operation and Development (OECD) (2019). *Norway: Country Health Profile 2019: State of Health in the EU*. Norway: Country Health Profile 2019 | en | OECD.

The Organisation for Economic Co-operation and Development (OECD) (2021). *OECDs Health Care Quality and Outcomes programme* (HCQO). Available from http://www.oecd.org/els/health-systems/health-care-quality-indicators.htm. Downloaded 03.11.2021