

The Development of a New Care Service Landscape in Norway

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ABSTRACT: Demographic changes, as well as the transfer of medical and caring tasks from specialist to primary care in Norwegian municipalities, have led to changes in care service delivery. So far, we have limited knowledge of how this affects the design of the care services. Based on a semi-structured questionnaire survey, this article presents the development of a new care service landscape in Norway, where municipalities increasingly set up specialized care services for different patient groups and their care needs. This leads to a continuum of care service models from a generalist approach to highly specialized care services. Larger municipalities typically have a higher degree of specialization, indicating that volume is an important prerequisite for specialization. Similarly, a higher degree of specialization corresponds to higher formal competencies in the workforce. To understand the development of the services and the impact on care service delivery, further research is required.

KEYWORDS: Health care services, long-term care, nursing homes, home care, specialization

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Background

Worldwide, governments are focusing on redesign and reorganization of health and social care services to make health and social care provision more sustainable.1 With an increasing elderly population, the long-term health and social care sector is growing,^{2,3} and new service models are sought to meet increasing demands for care.4 When developing health and social care services, national decision-makers have to balance increased expectations among the population, both in terms of levels of care and the degree of tailor-made services, with limited resources.^{5,6} The development of care service delivery is a result of a series of priority settings on the macro (national) and meso (local) level. The macro level represents national policymaking, whereby politicians determine guidelines for local government, which in turn is responsible for priority setting and health and social care service design and budgeting at the meso level. Furthermore, the managers and practitioners at the micro level are responsible for the organization and execution of services, reflecting every day priorities in service delivery.⁷

A global trend in health service delivery is shorter hospital stays. This development entails increased responsibilities for primary care, as treatment and care for patients who previously were the responsibility of the specialist health services now are provided by the primary health services. As a result, care service models based on increased specialization are established at the local level. 9,10 Several reports highlight the increasing importance of specialized care due to rising numbers of patients with long-term conditions and multimorbidity in long-term care. 11-13 Based on patient needs, specialization may be an important factor in providing high-quality long-term care. 4

So far, there is limited knowledge of how these new local care service models are unfolding in the European care service

landscape. To contribute to the knowledge and discussion of different long-term care models, this article will analyze current trends in Norway, focusing on what types and levels of specialized services are developed in the municipal context. Furthermore, we investigate to what extent different service models may be explained by municipal factors like population size, income, demography, levels of education, and care service organization. We start by providing some background information on Norway's health care system.

The organization of health and social care services in Norway

In Norway, the overall care policy is formulated by the Government, and overall resource allocation is largely controlled at the national level.¹⁴ However, the responsibility of planning and providing long-term care services is delegated to the local authorities in Norway's 356 municipalities. Through an ongoing reform, the number of municipalities was reduced from 422 on January 1, 2020. This was to create larger municipalities that would be more robust in providing services for the population. National priorities in health care are expressed through policy documents and professional guidelines and are executed through judicial acts, various incentive schemes, and earmarked grants.¹⁵ The municipalities' nonrestricted revenue, the share of its revenues which each municipality can administer freely, makes up 77% of the municipal sector's total income. The nonrestricted revenues consist of tax revenues and block grants from the state level. Through planning and budgeting, politicians and administrators in the municipalities develop local care service structures. The delivery of care services is performed in nursing homes, sheltered housing (accommodation

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specifically designed for people in need for care allowing them to live independently) and home care services.

Thus, it is clear that priorities at the macro, meso, and micro levels affect long-term care service provision. The overreaching political goal agreed on by governments of both the left and right is universal services at the local level, available to all residents of the municipality, regardless of age, diagnosis, and financial or social status.¹⁶ Traditionally, the long-term care services in Norway have been generalist, serving a broad group of patients with different needs. Notwithstanding, in 2008, the Norwegian central government initiated a care plan to gradually expand the municipal care services—"Care Plan 2015." The care plan focused on increased capacity through more personnel and increased number of beds in long-term care. And, in 2012, the "Coordination Reform" was launched with a goal to provide municipalities with a comprehensive approach to prevention, early intervention, early diagnosis, treatment, and follow-up.¹⁷ One means to achieve the goals of the reform was to move medical and care responsibilities from hospitals to primary care, leading to a new demand for increased capacity as well as service and competence development in the latter sector. In the last few decades, the municipalities have been adapting services in response to the demands of national policies and reforms, 18 and a variety of specialized municipal care services have emerged. Examples are 24-hour municipal in-patient acute units, larger and more specialized short-term units in nursing homes, and teams in-home care with special expertise in handling specific patient groups (eg, persons with dementia) or providing specific services (eg, palliative care and rehabilitation). 19,20

Methods

The study was conducted in a sample of 75 Norwegian municipalities, stratified by size and region, representing both urban and rural, small-, medium-, and large-sized municipalities in all 5 regions of Norway. To study the type and level of specialization of care services, we used a self-developed questionnaire with semi-structured questions. The questions were extracted from national policy documents and addressed the care services offered to the adult population (older than 18 years) in the municipality. The questionnaire was piloted in 3 municipalities and subsequently discussed in the research team and with municipal representatives to ensure the collection of valid and reliable data. Municipal managers, responsible for long-term care services, were approached to be interviewed in 2013 to 2014. The questionnaire was filled in by the interviewer in faceto-face interviews, which provided opportunities for both informants and interviewers to ask for further clarification, provide comments, and elaborate on local care solutions. In cases where there was uncertainty surrounding specialization, the question, categories, and municipality's services were elaborated on, and a consensus between interviewer and interviewee on a yes or no answer was reached. In this article, we focus on the structured questions regarding specialized services in institutions and home care, operationalized as care services provided to certain patient groups with specific needs (eg, dementia, palliation, and rehabilitation). The survey measures, the 13 types of specialization used in the study, are presented in Table 1. The respondents could answer yes or no to each question.

A specialization index was constructed by adding up the numbers of "yes" answers from each municipality to create an index, ranging from the value 0, representing no specialized services, to the value 13, representing the highest level of specialized services. Additional data regarding the municipalities' population and economy, also from 2014, were retrieved from Statistics Norway's Municipality-State-Reporting (KOSTRA)²¹ database. The independent and dependent variables were divided into 3 similar-sized groups, each representing high, medium and low values. It is important to note that there is some covariation between the independent variables; larger municipalities tend to have younger populations and higher levels of education. The specialization index was divided into 3, leaving the level of specialization defined as high in municipalities with a value of 10 or higher, as medium with values between 6 and 9, and as low if the value was 5 or lower. The independent variables and their operationalization are presented in Table 2.

Table 3 presents the key characteristics of the municipalities that participated in the study. The variation across all variables reflects the strategic selection of municipalities and the diverse conditions they operate according to when designing their services.

Analysis

Because the aim of the study was to analyze current trends in Norway, focusing on types and level of specialization in the municipal context, descriptive statistics were used in the analysis. To describe how different service models may be influenced by municipal factors like population size, income, demography, and care service expenses, cross-tabulations with exact chisquare tests (two-sided) were used. Software used was IBM SPSS Statistics version 22.

Ethics

The study adheres to the ethical requirements governing Norwegian universities and research institutes and was approved by the Norwegian Centre for Research Data (NSD), reference number 37637.

Results

Types and level of specialization

The analysis showed that specialization is common both in nursing homes and in the in-home care services. As Table 4 shows, nursing home services for persons with dementia is the Sogstad et al 3

Table 1. Survey measures.

VARIABLE	DESCRIPTION		
	Specialized services in nursing homes		
Palliative care	Does your municipality have beds reserved for palliative care in nursing homes?		
Dementia care	Does your municipality have rooms/beds reserved for dementia care in nursing homes? (unit with 4-12 residents with the diagnosis of advanced dementia)		
Reinforced dementia care	Does your municipality have rooms/beds reserved for reinforced dementia care in nursing homes? (dementia as main diagnosis and behavioral deviation such as aggression, physical, and/or verbal agitation and uncritical social conduct)		
Psychiatry	Does your municipality have rooms/beds reserved for psychiatry/psychiatric health care in nursing homes?		
Substance abuse care	Does your municipality have a separate service or rooms/beds reserved for alcoholics/drug abusers in nursing homes?		
Rehabilitation	Does your municipality have rooms/beds reserved for rehabilitation in nursing homes?		
Short-term/ respite care	Does your municipality have rooms/beds reserved for short-term stays/respite care? (beds reserved for persons with comprehensive care needs where next-of-kin require relief or the patient needs short-term medical care or nursing/supervision)		
	Sheltered housing		
Dementia care	Does your municipality have sheltered housing reserved for persons with dementia, organized as shared housing?		
	Specialized home care services		
Rehabilitation	Does the home care service in the municipality have a rehabilitation/reablement team?		
Palliative care	Does the home care service in the municipality offer palliative care services to service recipients living at home?		
Dementia care	Does the home care service offer dementia care services to service recipients living at home?		
Psychiatry	Does the home care service offer, as part of its own service provision, psychiatric care services to service recipients living at home?		
Neurological disorders	Does the home care service offer, as part of its own service provision, specialized care services to service recipients with neurological disorders living at home?		

Table 2. Independent variables.

VARIABLE	DESCRIPTION	LOW	MEDIUM	HIGH
Size	Population size	< 5000	5000-19999	>20000
Demography	Share of population aged 67 years and older	<0.139	0.131-0.159	>0.151
Nonrestricted revenue	Municipality's nonrestricted revenue (1000 NOK per capita)	<47.0	47.01-54.3	>54.3
Care expenses	Net operating expenses for care services as a percentage of the municipality's total net operating expenses	<30	31-34	>34
Education	Share of the municipal health and care services' workforce with a minimum of 3 years' higher education (eg, registered nurses, physiotherapists)	<30	31-37	>38

most common specialized service. This is followed by palliative care in the in-home care services and short-term/respite care in nursing homes. Palliative care is also given high priority, as 89% of the municipalities offer palliative home care services, and 60% have a specialized unit or dedicated beds in nursing homes.

Of the 75 municipalities that participated in the study, 73 provided complete data on their degree of specialization and

thus provided us with the opportunity to calculate their position on the specialization index, which ranged from 0 to 13. The mean number of specialized services among the 73 municipalities was 7.3 (SD=2.76). All the municipalities reported having at least some specialized services; their responses ranged from 2 to 13. How the results were distributed is presented in Figure 1.

Table 3. Characteristics of participating municipalities (N=75).

VARIABLES	MEAN	STANDARD DEVIATION	MINIMUM	MAXIMUM
Population size	26373	42964.76	211	27 1949
Nonrestricted revenue per capita (in 1000 NOK)	54.12	13.54	43.63	132.98
Proportion of population aged ≥67 years as a percentage of total population	14.7	2.85	9	22
Care expenses as a percentage of total operating expenses	32.04	4.18	24.5	42.1
Education (percentage of workforce with minimum 3 years of higher education)	34.24	5.64	24	50

Source: KOSTRA database.21

Table 4. Type of specialization.

SERVICE	YES (%)	SAMPLE SIZE (N)
Nursing homes		
Dementia care	95	75
Short-term/respite care	88	75
Palliative care	60	75
Rehabilitation	59	75
Reinforced dementia care	41	75
Psychiatry	22	74
Substance abuse care	5	75
Sheltered housing		
Dementia care	38	73
Home care		
Palliative care	89	75
Dementia care	76	75
Psychiatry	68	75
Neurological disorders	37	75
Rehabilitation	37	74

As Figure 1 shows, all municipalities have some degree of specialization, and 16 can be said to be highly specialized with 10 or more different specialties. To explore if there is a pattern in the development of specialized services, we focused on the municipalities with a low level of specialization to see with which services they start. Reinforced dementia care in nursing homes seems to be a specialized service with high priority among the less specialized municipalities. In addition, palliative home care is 1 of the first specialized services to be offered. On the other end of the scale, if focusing on highly specialized municipalities, the 3 services that are last to be added to the list are psychiatry and substance abuse care in nursing homes, and services targeted toward patients with neurological disorders and rehabilitation in-home care.

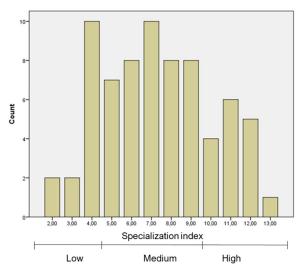


Figure 1. Specialization index.

Specialization and municipal characteristics

Variations in the degree of specialization according to different municipal characteristics are presented in Table 5. Municipality size, demography, nonrestricted revenue, and education all showed up as being significantly different across care service specialization levels (P < .05). The large municipalities had more specialized services than small ones: Almost 90% of the municipalities with a high level of specialization were large. At the same time, about 40% of the large municipalities had a medium level of specialization. Municipalities with a high share of the population aged 67 years or more had a lower degree of specialization compared with "younger" municipalities. Of the municipalities with a high level of specialization, more than 60% had a young population. Furthermore, the results showed that municipalities with a high level of nonrestricted revenue did not have a higher level of specialization than municipalities with lower rates of income. More precisely, municipalities with high nonrestricted revenue were overrepresented in the low specialization group, and the distribution between the revenue levels was more equal in the other 2 specialization groups. High care expenses, however, did not indicate a high level of specialization. Municipalities with high

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Table 5. Specialization relative to the municipal characteristics (percentages in columns).

	LOW SPECIALIZATION (1-5), N=23	MEDIUM SPECIALIZATION (6-9), N=34	HIGH SPECIALIZATION (10-13), N=16	ALL MUNICIPALITIES, N=73	<i>P</i> VALUE
Size					<.001
Small	73.9	17.6	0	31.5	
Medium	21.7	44.1	12.5	30.1	
Large	4.3	38.2	87.5	38.4	
Demography					.009
Young	30.4	44.1	62.5	43.8	
Intermediate	17.4	38.2	31.3	30.1	
Old	52.2	17.6	6.3	26.0	
Revenue					<.001
Low	4.3	35.3	68.8	32.9	
Medium	26.1	41.2	31.3	34.2	
High	69.6	23.5	0	32.9	
Expenses					.167
Low	34.8	29.4	43.8	34.2	
Medium	30.4	29.4	50.0	34.2	
High	34.8	41.2	6.3	31.5	
Education					.003
Low	39.1	23.5	0	23.3	
Medium	52.5	47.1	37.5	46.6	
High	8.7	29.4	62.5	30.1	

levels of specialization tend to have higher levels of education: 62.5% of the municipalities with a high level of specialization also had a high number of personnel holding a minimum of a 3-year university degree.

Discussion

Our analysis shows that the municipalities in Norway offer several types of specialized long-term care services for their inhabitants. However, the level of specialization varies and can be conceptualized as a continuum of different care service models, ranging from a more generalist approach with a limited number of specialized services to highly specialized models of service provision (Figure 2). With current demographic developments and health care policies, municipalities face increasing responsibility for treatment and follow-up for a variety of patient groups—young and old. The increasing elderly population and more complex patient groups demand more targeted health and social care services, and this development is evident in our data. Bearing in mind that the long-term care services until relatively recently were characterized by a generalist approach, ²² our data

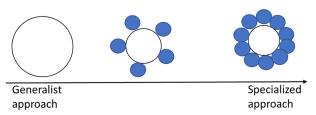


Figure 2. Continuum of care service models.

point to a considerable change in the care service landscape during the last 10 to 20 years.²³

The development of specialized services in Norway reflects a focus on dementia care, palliative care, and rehabilitation. Dementia and palliative care are both highlighted in Norwegian white papers and promoted through different government incentives for competence building and service development.^{24,25} Moreover, in recent years, the policy focus on aging in place has led to an increased focus on rehabilitation and reablement.²⁶ Thus, the development of increased specialization can be viewed partly as a result of national policy and partly driven forward by

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local needs and engagement.^{27,28} These trends are also recognizable across several high-income countries.^{4,29}

When characteristics of the municipality are considered concerning care service development, municipal size appears to be an important factor for the specialization of services. This indicates that volume is an important prerequisite for specialization. In addition to the general demographic change, the municipalities in Norway are responsible for patients discharged from the hospital who require intermediate care, reablement, and/or aftercare. In other countries like the United Kingdom, short-term postdischarge care is part of the National Health Service (NHS) trusts' responsibilities. Municipal posthospital care in Norway includes institutional services like reinforced dementia care, rehabilitation/reablement, and shortterm stays for follow-up and treatment. But also in the home care services, nursing practice has become more medically advanced.³⁰ In the Norwegian context, where a large proportion of the 422 municipalities are rural and have less than 20000 inhabitants, the significance of volume for specialization should be a worry for policy-makers concerned with equality in service provision, especially if 1 considers specialization a parameter for quality in services.⁴ Some municipalities have solved the volume problem by offering services in collaboration with other municipalities, as they cannot afford to provide the full range of specialized services by themselves. When entering intermunicipal collaboration, the patient groups become larger and economies of scale can be obtained, and municipalities are not as vulnerable to fluctuations in the patient groups over time.31,32

Furthermore, our results show that large municipalities with a high level of specialization also have a higher proportion of staff holding a university degree (or equivalent). This difference in specialization and formal competence might challenge the ideal of equality in service delivery across the country. Studies have shown that staff's education levels influence the performance of health care services.³³ This leads us to question whether the different care service models along the continuum, reflecting a different degree of specialization and following different education levels, can provide the same quality of services, according to national policy goals. How local authorities decide to design their services may influence the efficacy in service delivery. The question of whether different care service models provide different outcomes is thus an important one—not only for policy-makers but also for patients and their families. The first step to increased knowledge of the performance of different care service models is to study different care service models in operation. This article represents 1 step in this direction by showing differences in structure and organization of the longterm care services in Norwegian municipalities.

Moreover, our findings show that the specialization of services is an ongoing process. In this study, all participating municipalities reported having at least some specialized services, and several municipalities were highly specialized. This trend of specialization in long-term care is consistent with

developments seen in other countries.⁴ A comprehensive understanding of the role specialized services play in the continuum of care is important for further service development.

Limitations

The results of this study should be read with some limitations in mind. First, the municipalities that participated were not chosen at random. Rather, they were strategically selected to make up a sample that was representative of the municipality setting nationally, being stratified by geography and size. Seventy-five municipalities were selected for the sample, and 75 municipalities (100%) participated. Second, municipal managers were interviewed face to face by 5 different interviewers. Although definitions of each specialized service were provided in the structured interview questionnaire, the way the informants understood the concept of specialization within each category might have differed somewhat across interview settings and municipalities. Moreover, because all municipalities are required by law to provide services that meet the needs of all their inhabitants, some may have felt that if they answered "no" to any of the questions, they may be regarded as not complying with the law.

Conclusions

Increased knowledge and understanding of how the different care service models are evolving, and what consequences the different models have for care service delivery is important for planning, priority setting, and further service development. The care service landscape in Norway is characterized by a continuum of care service models from a generalist approach to specialized services. Specialization happens both in-home care and in nursing homes, and services specializing in dementia care and palliative care are the most frequent. Larger municipalities have a higher degree of specialization, and municipalities with more specialized models of care have higher formal competencies among their staff. Our data did not contain information about why the different areas are developed at a different rate, but this is an important venue for future research.

Author Contributions

MS and MSS developed the research question, were responsible for data development and analysis, and wrote the first draft. RH reviewed and commented on each section of the article as it was produced.

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REFERENCES

- World Health Organization. Global Strategy and Action Plan on Ageing and Health. Geneva, Switzerland: World Health Organization; 2017.
- Colombo F, Llena-Nozal A, Mercier J, Tjadens F. Help Wanted? Paris, France: OECD; 2011.

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- Pot AM, Briggs AM, Beard JR. The sustainable development agenda needs to include long-term care. J Am Med Dir Assoc. 2018;19:725-727.
- Van Eenoo L, van der Roest H, Onder G, et al. Organizational home care models across Europe: a cross sectional study. *Int J Nurs Stud.* 2018;77:39-45.
- Ellner AL, Phillips RS. The coming primary care revolution. J Gen Intern Med. 2017;32:380-386.
- Thoma-Lürken T, Bleijlevens MH, Lexis MA, Hamers JP, de Witte LP. An overview of potential labor-saving and quality-improving innovations in longterm care for older people. *J Am Med Dir Assoc.* 2015;16:482-489.
- Valentijn PP, Boesveld IC, van der Klauw DM, et al. Towards a taxonomy for integrated care: a mixed-methods study. Int J Integr Care. 2015;15:e003.
- 8. OECD. Health at a Glance 2017. Paris, France: OECD; 2017.
- Weerkamp NJ, Tissingh G, Poels PJ, et al. Parkinson disease in long term care facilities: a review of the literature. J Am Med Dir Assoc. 2014;15:90-94.
- Singhal A, Segal AR, Munshi MN. Diabetes in long-term care facilities. Curr Diab Rep. 2014;14:464.
- Helsedirektoratet. Behovet for spesialisert kompetanse i helsetjenesten: En status-, trend- og behovsanalyse fram mot 2030 [The need for specialized competence in the health services: a status, trend and needs analysis toward 2030]. Oslo, Norway: Helsedirektoratet; 2012.
- Bing-Jonsson PC, Hofoss D, Kirkevold M, Bjørk IT, Foss C. Sufficient competence in community elderly care? Results from a competence measurement of nursing staff. BMC Nurs. 2016;15:5-11.
- Naess G, Kirkevold M, Hammer W, Straand J, Wyller TB. Nursing care needs and services utilised by home-dwelling elderly with complex health problems: observational study. BMC Health Serv Res. 2017;17:645.
- Romoren TI, Torjesen DO, Landmark B. Promoting coordination in Norwegian health care. Int J Integr Care. 2011;11:e127.
- Vabø M. Norwegian home care in transition—heading for accountability, offloading responsibilities. Health Soc Care Community. 2012;20:283-291.
- Vabo SI, Burau V. Universalism and the local organisation of elderly care. Int J Soc Soc Pol. 2011;31:173-184.
- 17. Ministry of Health and Care Services. St.meld. nr. 47 (2008—2009) Samhandlingsreformen: Rett behandling—på rett sted—til rett tid [The coordination reform: right treatment—in the right place—at the right time]. Oslo, Norway: Ministry of Health and Care Services; 2009.
- Hagen TP, Tingvold L. Planning future care services: analyses of investments in Norwegian municipalities. Scand J Public Health. 2018;46;495-502.
- Abelsen B, Gaski M, Nødland SI, Stephansen A. Sambandlingsreformens konsekvenser for det kommunale pleie- og omsorgstilbudet ['The coordination reform's consequences for the municipal care services]. Stavanger, Norway: International Research Institute of Stavanger; 2014.

- Skinner MS. Døgnåpne kommunale akuttenheter: En helsetjenestemodell med rom for lokale organisasjonstilpasninger [Municipal acute bed units: a national health service model with scope for local adaptation]. Tidsskrift for omsorgsforskning. 2015;1:131-144.
- Statistics Norway. KOSTRA—key figures on municipal activities. https://www.ssb.no/offentlig-sektor/kostra/. Updated 2018.
- 22. Hatland A, Kuhnle S, Romøren TI. *Den Norske velferdsstaten* [The Norwegian welfare state]. 5. utg. ed. Oslo, Norway: Gyldendal; 2018.
- Borgan J-K. Pleie- og omsorgsstatistikk 1962–2010 [Care services statistics 1962– 2010]. Oslo, Norway: Statistisk sentralbyrå; 2012.
- Omsorgsdepartementet Ho. Mestring, muligheter og mening Framtidas omsorgsutfordringer [Mastery, opportunities and meaning: the care challenges of the future]. Oslo, Norway: Omsorgsdepartementet Ho; 2005.
- Omsorgsdepartementet Ho. Omsorgsplan 2015 Helse- og omsorgsdepartementet [Care plan 2015]. Oslo, Norway: Omsorgsdepartementet Ho; 2007.
- Tuntland H, Aaslund MK, Espehaug B, Førland O, Kjeken I. Reablement in community-dwelling older adults: a randomised controlled trial. *BMC Geriatr*. 2015;15:145.
- Tingvold L, Sogstad M. Lindrende behandling—Erfaringsoppsummering-tilskuddsordning for kompetansehevende tiltak for lindrende behandling og omsorg ved livets slutt [Palliative care: a summary of experiences from a support scheme for competence building measures for end of life palliative care]. Gjøvik, Norway: Høgskolen i Gjøvik; 2012.
- Tingvold L, Magnussen S. Økt spesialisering og differensiering i sykehjem [Increased specialisation and differentiation in nursing homes: how do different municipalities deal with this?]. Tidsskrift for omsorgsforskning. 2018;4: 153-164.
- Aspinal F, Glasby J, Rostgaard T, Tuntland H, Westendorp RGJ. New horizons: reablement—supporting older people towards independence. *Age Ageing*. 2016; 45:572-576.
- Melby L, Obstfelder A, Hellesø R. "We tie up the loose ends": homecare nursing in a changing health care landscape [published online ahead of print December 14, 2018]. Glob Qual Nurs Res. doi:10.1177/2333393618816780.
- 31. Tjerbo T, Skinner MS. Interkommunalt samarbeid om døgnåpne kommunale akuttenheter og legevakt—Tar helsekommunen form? [Intermunicipal cooperation in Norwegian healthcare: is the "healthcare municipality" taking shape?].

 Tidsskrift for omsorgsforskning. 2016;2:117-124.
- Holum ML, Jakobsen TG. Inter-municipal cooperation and satisfaction with services: evidence from the Norwegian citizen study. *Int J Pub Admin*. 2016; 39:597-609.
- Sibandze BT, Scafide KN. Among nurses, how does education level impact professional values? A systematic review. Int Nurs Rev. 2018;65:65-77.