

## Current status of rehabilitation activity and the new health care reform in Norway

Wivi-Ann Tingvoll\* and Leon Mendel McClusky

*Faculty of Health and Society, Narvik University College, Lodve Langesgate 2, Narvik, Norway*

*(Received 18 February 2013; accepted 11 June 2013)*

The purpose of this study is to analyse the current activities of Norwegian ambulatory rehabilitation teams at a time when the field of rehabilitation is set for major changes with the recent introduction of the new pro-rehabilitation Coordination Reform. The content of the all logged consultations of four ambulatory teams belonging to one of the four regional health authorities was analysed in terms of municipality population size and, where possible, the age-distribution of the patients. Consultations were coded into one of four main codes, i.e. *investigation and diagnostics; treatment and practical training; consultation, collaboration and training; and auxiliary measures*. A total of 2992 consultations were registered for period 2009–2012, with the far majority of consultations involving patients aged  $\leq 67$  years, and the elderly under-represented in especially the smaller municipalities. Analysis showed differential rehabilitation activity towards the elderly in the two rehabilitation teams which registered the far majority of consultations, which were also concentrated in only three of the 18 sub-codes. Provision of rehabilitation seems to lack an overall coordinating strategy. The kind and level of rehabilitation any given elderly person is entitled to, by and large, depends on the place of residence of the patient.

**Keywords:** rehabilitation; ambulatory teams; health care reform; elderly

### Introduction

The provision of health care and its associated costs is under review in many parts of the developed world, not least because of budgetary constraints but also because of changing patient demographics as an increasing proportion of the population is ageing (Schulz, Leidl, and König 2004; Huseby 2005; Vass et al. 2007). In Norway, those aged 65 years and older comprise 15% of the population (Public Health, Institute for. 2012), and constitute the largest and most care-demanding user group in both the specialist and municipal health services, often due to their rather complex chronic disease picture (Huseby 2005; Medical Association, The Norwegian. 2012; Garåsen 2012).

The Norwegian health care system is administered at two levels, i.e. primary health care administered by the municipal health care services, and specialist health care services (represented by the hospitals). Every citizen is assigned a general

---

\*Corresponding author. Email: [wivi-ann.tingvoll@hin.no](mailto:wivi-ann.tingvoll@hin.no)

This article was originally published with errors. This version has been amended. Please see Corrigendum (<http://dx.doi.org/10.1080/15017419.2014.912786>).

practitioner in his/her municipality. Specialist health care is provided on referrals from the local general practitioner. Specialist health care services operate under the auspices of one of four regional health authorities. In Norway, as in the rest of Scandinavia, the Ministry of Health and Care sets out policy guidelines. By contrast, the Directorate of Health sets out specific regulations which, among others, clearly stipulates the rights of the patient to receive optimal and individualized treatment and care by way of the individual plan (Thommesen 2004; Alve et al. 2013; Slettebø et al. 2012).

## **Background**

Budgetary allocation between the two service levels changed with the introduction in January 2012 of the new Coordination Reform (Storting White Paper, no. 47. 2008–2009). This new reform, which was launched under the banner ‘the right treatment at the right place and at the right time’, aims to streamline patient treatment pathways within the entire health care sector such that ‘all systems and services will be oriented towards assisting the individual with coping with life or restoring normal functioning’. Since the latter clearly resonate with the main principles of rehabilitation, it was therefore no surprise that the field of rehabilitation would receive a much greater focus than it has previously.

The Reform was borne out of an overall concern that the coordination of patient care between the specialist health care services and municipalities in Norway often fell short of expectations, with inadequate provision of rehabilitation for, e.g. stroke patients (who are most in need of immediate and optimal rehabilitation), often highlighted as an example (Health Regulatory Authority, The. 1996; Storting White Paper, no. 21. 1998–1999). As the Reform has as its main focus the reduction of the hospital bed occupancy rate and the promotion of preventative health measures, a key strategy is the proposed introduction of many more ambulatory teams, particularly at the level of the municipal health care services. Ambulatory rehabilitation teams have been the backbone of rehabilitation in Norway for several years, and they are often the central link between the regional health authority and the municipality. Although some municipalities may have their own teams, often consisting of only a nurse, physiotherapist and occupational therapist, these teams have for many years been based at the hospitals (specialist health care services) where they provided ambulatory services. The teams are here defined as ‘interdisciplinary, specialist treatment provided by a team of health care professionals in or close to the patient’s home, without the formal admission of the patient to the hospital’ (Ranheim et al. 2010). Thus, the services are rendered either at the hospital or in the municipality, or as a result of collaboration between the two (Ranheim et al. 2010). Over the years, these teams were also tasked with providing their collaborative partners in the municipalities with training and supervision in rehabilitation practice. With the introduction of the Coordination Reform, it is intended that rehabilitation, which has up till now been by and large driven from the secondary health care level, will instead be driven at the primary health care level, this will place greater demands on the hospital-based rehabilitation teams who will be required to train new teams, and engage in greater collaborative measures across the two health care sectors.

An outflow of these developments in health policy was, among others, the release of a strategy document (Ministry, Health and Care 2008), followed by specific regulations and guidelines (Lovdata Foundation, The. 2011; Health Directorate, The. 2010), investigations into the state of rehabilitation by both the Health Directorate

(2011a) and the office of the Auditor-General (2012) and the need to clarify the delineation of responsibilities and tasks between the municipalities and specialist health care services (Health Directorate 2012), all which underscored the state's concern about the status of rehabilitation. The investigation commissioned by the Health Directorate (2011b) into rehabilitation provided by the municipalities was based on qualitative interviews with leaders and staff in a selection of 10 different sized municipalities. The study revealed a somewhat fragmented service with municipalities trying, in spite of various shortcomings, their utmost best to comply with a steady stream of statutory requirements from the health authorities in the light of the new Coordination Reform. Only 3 of the 10 municipalities stated that they had an ambulatory team. Investigation into the specialist health care services revealed that hospital ward-based rehabilitation activity, as registered by the regional health authorities, has actually been falling over the last few years concomitant with an increase in outpatient rehabilitation treatment (Health Directorate 2011a; Auditor-General 2012). If were to be left unchecked, these trends could have resulted in a diminished service for those certain patient groups who previously received rehabilitation in dedicated rehabilitation wards in the specialist health care services.

Whereas the concern of the state about the provision of rehabilitation has often highlighted the care needs of stroke patients (Health Regulatory Authority, The. 1996; Health Directorate, The. 2010), specific regulations and guidelines for the rehabilitation needs of those with other complex and chronic illnesses, including the elderly, were less forthcoming (Tingvoll and Sæterstrand 2008; Tingvoll and Fredriksen 2011). We hypothesize that although the rehabilitation field in general has been receiving a great deal of attention in recent years, in terms of policy at least, the true status of rehabilitation for the growing elderly population has been somewhat camouflaged by, among others, the numerous challenges at the municipal – specialist health care services interface. A recent report by the Norwegian Medical Association revealed that in 2005 patients aged 80 years and older accounted for almost 22% of all hospital bed occupancy, with the elderly also constituting the majority of discharge-ready patients who are responsible for 123,000 daily hospital bed occupancies in 2010 (Medical Association, The Norwegian. 2012). The latter trends are specifically targeted by the Coordination Reform's intentions, and possible solutions are linked to the broadened health care responsibilities that the municipalities will receive (Storting White Paper, no. 47. 2008–2009). Despite the lofty goals of the Reform, an overriding concern, however, is how to deal with the existing bottlenecks in the system caused by increasing numbers of especially discharge-ready, but care-needy elderly, and whether the municipalities have the logistical and technical capacity for these tasks (Paulsen and Grimsmo 2008; Tingvoll, Sæterstrand, and Fredriksen 2010; Tingvoll and Fredriksen 2011; Garåsen 2012), let alone the broadened responsibilities the municipalities will receive under the new Reform (Medical Association, The Norwegian. 2012).

Besides the fact that the majority of Norway's citizens reside outside the four large urban centres, the mountainous, fjord-dominating long coastline of Norway is also home to many small communities which have significant proportions of elderly persons. The latter typically describes the geographic region covered by our case study of four rehabilitation teams. The peculiar geography and varied population density and age groups, not to mention the differences in the financial health of the various municipalities, are all potentially significant factors which may impact the delivery of health care services, which will become an even greater priority under

the Coordination Reform, with its banner ‘the right treatment at the right place and at the right time’. On the basis of these, other anecdotal information from local stakeholders in the rehabilitation field, and our particular interest in the status of rehabilitation in smaller, remote and ageing communities, the purpose of this study was to highlight the current state of rehabilitation and to draw attention to possible challenges that face the Coordination Reform. To this end, a quantitative analysis was performed on the current database of rehabilitation consultations as registered by four ambulatory rehabilitation teams, in terms of its content, the size of the municipalities the patients reside in and the age-distribution of the patients, as this information is not registered by the municipalities themselves. These aims were in line with the report of Auditor-General (2012) which noted a long-standing concern of the regional health authorities that the system of registering rehabilitation activity suffered from various deficiencies.

## **Methods**

Up and till 1 January 2012, rehabilitation was mainly provided by ambulatory teams based in the specialist health care services (see also (Ranheim et al. 2010), which in turn is managed by the four regional health authorities in the country. This investigation is a case study of the database, for the period 2009–2012, of one regional health authority which contains the registered rehabilitation consultations of the four rehabilitation teams under its control. These four rehabilitation teams (anonymously labelled as A, B, C and D) are located in various parts of the region. Teams A and B are based on urban centres, whereas the other two (C, D) are based on rural districts. One of the rehabilitation teams operates out of a tertiary-level hospital. This data, that can be made available for research purposes upon request, have been cleared of all patient identity information.

Each consultation was registered according to a Health Directorate-prescribed coding system that is supposedly used by all rehabilitation teams across the country (Health Directorate, The. and Kith 2010):

### **WM Investigation and diagnostics**

- WMA General examination
- WMB Examination of mental functions
- WMC Examination of upper body functions
- WMD Examination of functions related to personal activities and social participation
- WME Mapping of physical working environment
- WMF Mapping of other environmental factors (e.g. home environment, social network)
- WMG Other investigation/diagnostics

### **WN Treatment and practical training**

- WNB Other psychological treatment
- WNE Other guided training
- WNG Body function training
- WNH Training of functions related to personal activities and social participation

### **WP Consultation, collaboration and training**

- WPA Patient advice
- WPB Consultation with or in collaboration with other persons and institutions
- WPC Training to cope

### **WQ Auxiliary measures**

- WQA Arranging auxiliary measures for the patient
- WQB Arranging auxiliary measures of the environment

WQC Testing of auxiliary measures/remedies  
 WQD Execution of auxiliary measures

Each sub-code was quantified according to municipality population size and age group (< and > 67 years of age) for each rehabilitation team.

**Ethical considerations**

The study is accordance with the appropriate ethical guidelines as stipulated by the National Ethics Committee for Medicine and Health science.

**Results**

To investigate differences in rehabilitation activity involving patients from the various municipalities, the total number of consultations registered by each of the four rehabilitation teams was analysed according to the population size of the municipalities served by the respective teams (Figure 1). A total of 2992 consultations were registered for the period 2009–2012. Overall, the rehabilitation activity of the two teams based in the two big urban centres far outnumbered, by at least 100-fold, the activity of the rehabilitation teams in the two smaller centres. Analysis revealed similar trends for rehabilitation teams A and B, i.e. the municipalities with the largest population sizes registered the highest number of consultations compared to municipalities with population sizes of 3000 or less inhabitants. By contrast, rehabilitation teams C and D registered no service to smaller municipalities and the few consultations that were registered were only found in the three and six large municipalities they respectively serve.

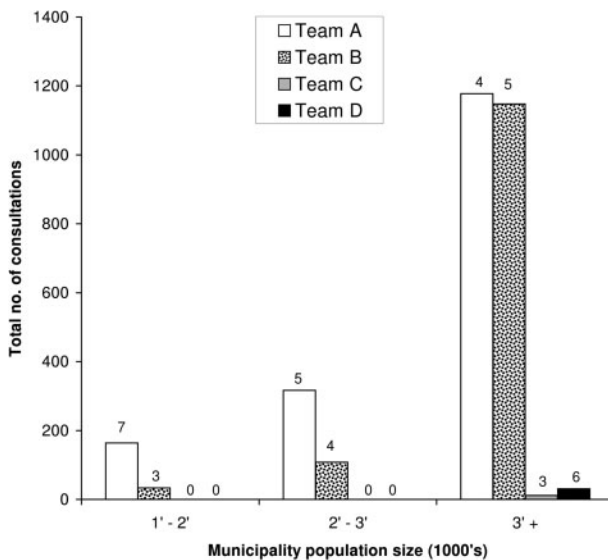


Figure 1. Analysis of the number of consultations registered by the four rehabilitation teams according to the municipality population size. The number in parenthesis above the columns indicates the number of municipalities in each municipality category.

Given the very low numbers of consultations registered by rehabilitation teams C and D, subsequent analyses focused on the activity of rehabilitation teams A and B. Seven sub-codes were used to register activity related to *investigation and diagnosis of the patient's condition*, with WM as main code (Figure 2). Except for the sub-code WMF, the data show overall that both teams A and B registered very low to no activity in the smaller municipalities, with only the larger sized municipalities showing any notable activity. Comparison of the two teams' activities in the largest municipalities, however, revealed differences in the WMA (Figure 2A), WMB (Figure 2B), WMD (Figure 2D) and WMF (Figure 2F) sub-codes. No rehabilitation activity was registered in the sub-codes related to *mapping of the physical working environment* (Figure 2E) and *other investigation/diagnostic activities* (Figure 2G), irrespective of the population size of the municipality.

Four sub-codes were used to register rehabilitation activity related to *treatment and practical training*, with WN as its main code (Figure 3). Overall, both teams registered very low to no activity in sub-codes WNB (Figure 3A), WNE (Figure 3B), WNG (Figure 3C) and WNH (Figure 3D), irrespective of the size of the municipality population.

Three sub-codes were used to register rehabilitation activity related to *advising, collaboration and training*, with WP as its main code (Figure 4). Overall, consultations recorded under this main code constituted the greatest component of all consultations registered by teams A and B. Once again the municipalities with the largest population sizes registered the highest number of consultations compared to municipalities with population sizes of 3000 or less inhabitants (Figure 4A, 4B). Few to no consultations were registered in the sub-code related to *training to cope*, irrespective of the population size of the municipality (Figure 4C).

Four sub-codes were used to register rehabilitation activity related to *auxiliary measures* (WQ as main code), but only eight consultations in total (all by team A) were categorized under the WQ main code (data not shown).

Given the variable rehabilitation activity registered under the different codes, further in-depth analysis of the age-distribution of rehabilitation activity of teams A and B focused only on those sub-codes with the highest number of consultations, i.e. WMF, WPA and WPB (Figure 5). Overall, the highest percentage consultations in both teams involved patients under the age of 67 years. This trend was even more pronounced for the activity registered by team B, with over 90% of all consultations involving patients aged less than 67 years old. Age-distribution analysis of team A's consultations coded as WPA (Figure 5C) and WPB (Figure 5E) revealed that the percentage consultations with patients aged 67 years and older increased with an increase in the size of municipality population, whereas that of patients aged younger than 67 years showed the opposite trend, although not as pronounced as those over the age of 67. By contrast, age-distribution analysis of team A's consultations coded as WMF (Figure 5A) revealed no clear municipality population size-related changes in the percentage consultations with patients aged 67 years and older, although the percentage consultations was greatest in the largest municipalities.

## Discussion

Rehabilitation will be one of the areas that will receive particular attention with the implementation of the new Coordination Reform in Norway in January 2012. In this regard, a recent investigation by the Office of the Auditor General (2012) outlined

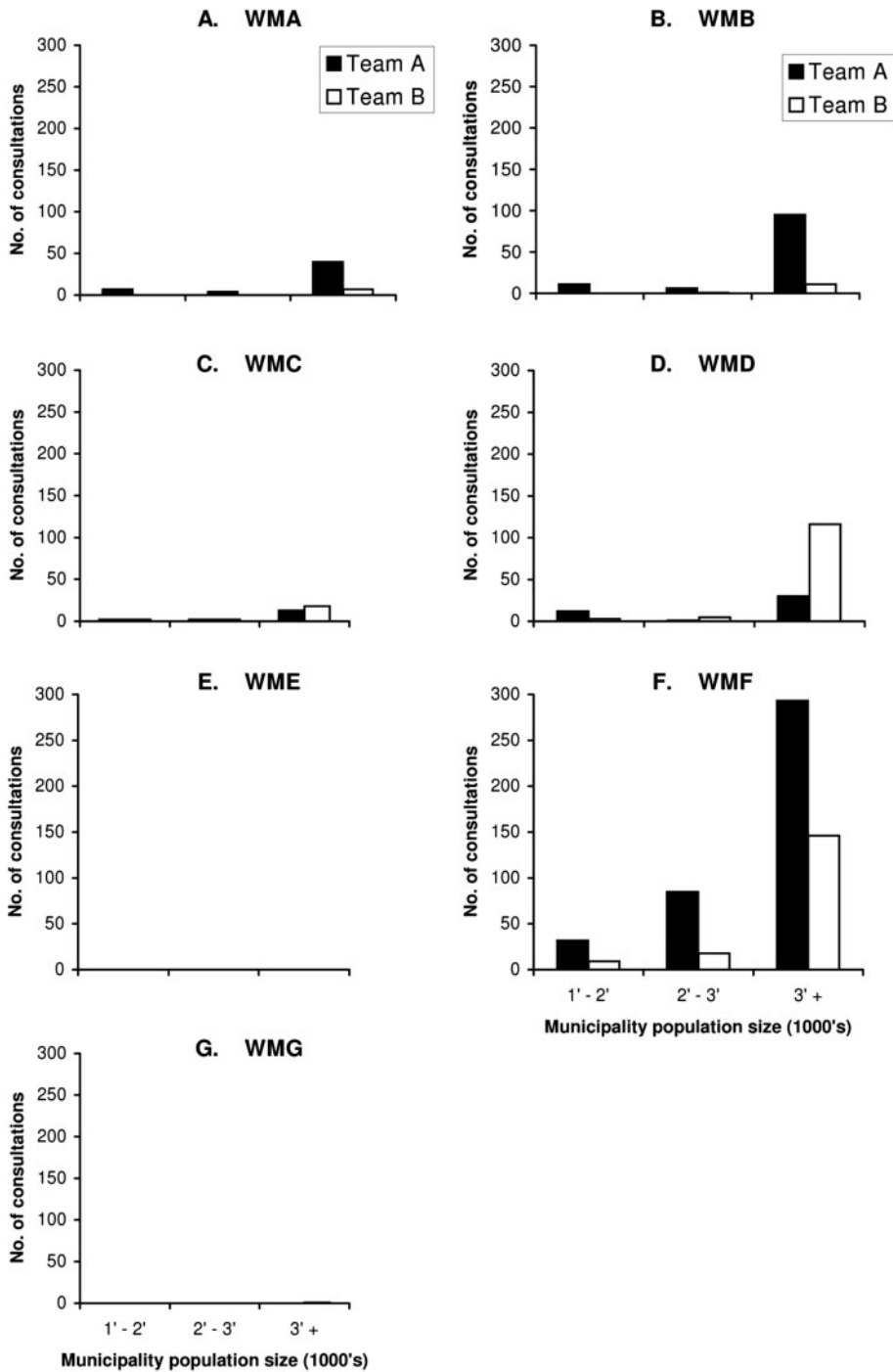


Figure 2. Analysis of teams A's and B's consultations in the seven sub-codes related to the WM main code (*investigation and diagnosis of the patient's condition*) according to municipality population size.

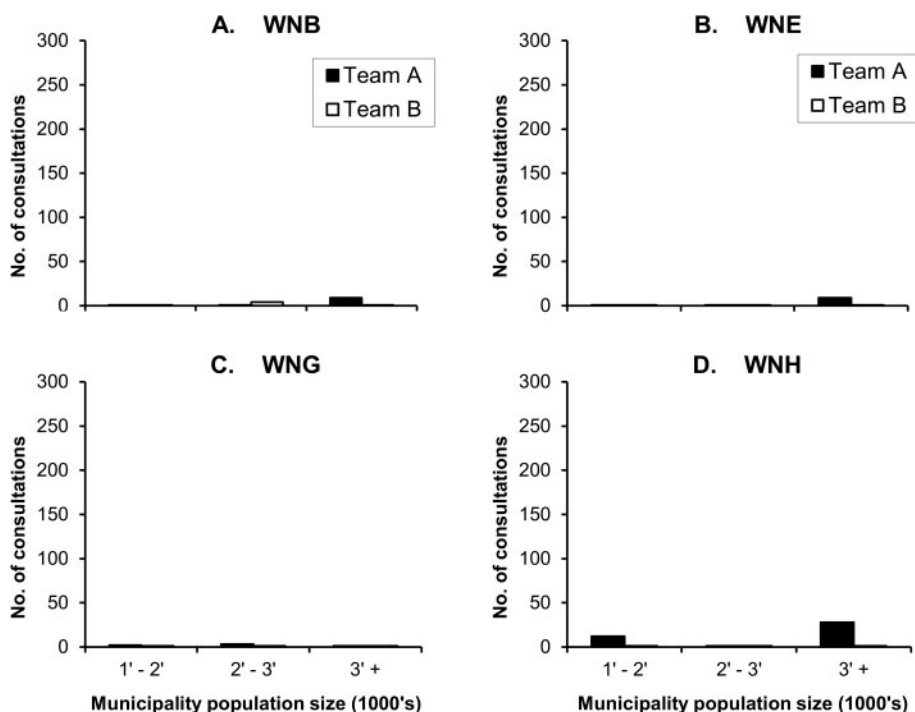


Figure 3. Analysis of teams A's and B's consultations in the four sub-codes related to the WN main code (*treatment and practical training*) according to municipality population size.

the state's desire for more knowledge about areas for improvement in the provision and registration of rehabilitation services.

Two major findings of this study were the municipality population size-related increase in the number of consultations, and the differential rehabilitation activity registered for the elderly by the two rehabilitation teams which registered the far majority of all the consultations that, in turn, were also concentrated in only 3 of the 18 sub-codes. Whereas the data of the one rehabilitation team showed the percentage of consultations with elderly patients to increase with municipality population size, the other rehabilitation team (team B) registered nearly no consultations with this patient group. The near lack of consultations with the elderly in team B may be due to the presence of a geriatric unit at the large hospital serving that region. The poor representation of elderly resident in smaller municipalities in the data coded under *consultation, collaboration and training* could possibly be due to their admission into other institutions. This explanation is, however, not consistent with data coded under *mapping of environmental factors such as the home environment and social network* which surprisingly do not show a municipality population size-related increase in the percentages of consultations with the elderly. The latter indicate that team A's home visits to elderly in smaller municipalities were undertaken with more or less the same frequency as with those in large municipalities, but follow-up treatment of these patients were probably not optimal, as suggested with the lack of rehabilitation activity recorded under the sub-code *training to cope*. The very low number of consultations overall in the other two rehabilitation teams (C and D) did not allow any analysis of the age-distribution of consultations by these two teams. It is possible



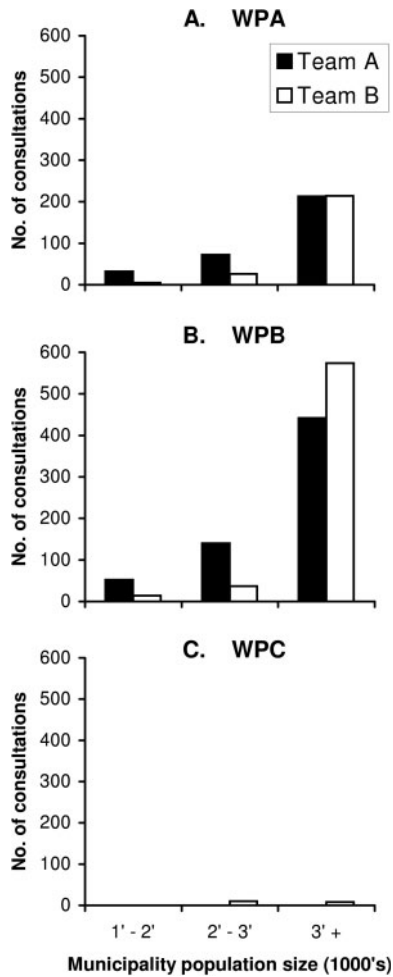


Figure 4. Analysis of teams A's and B's consultations in the three sub-codes related to the WP main code (*advising, collaboration and training*) according to municipality population size.

that rehabilitation in the latter regions might have been provided by private institutions (Health Directorate 2011a), whose logged activities are not available. Taken together, these findings seem to suggest that the kind and level of rehabilitation a given elderly person is entitled to, by and large, depends on the patient's place of residence, with the urban-dwelling elderly person most likely to receive a better service. Besides the new Coordination Reform aiming to address discrepancies such as these, the individual patient's right to optimal and individualized treatment is enshrined in an individual plan which applies to all age groups (Thommesen 2004). The latter is also supposed to enhance collaboration between the patient, public services and the various health care professionals (Alve et al. 2013; Slettebø et al. 2012).

Our findings which, at face value, show a disparate rehabilitation service for the elderly in large and small municipalities should perhaps be evaluated against the backdrop of trends at the specialist health care level. A recent report by the

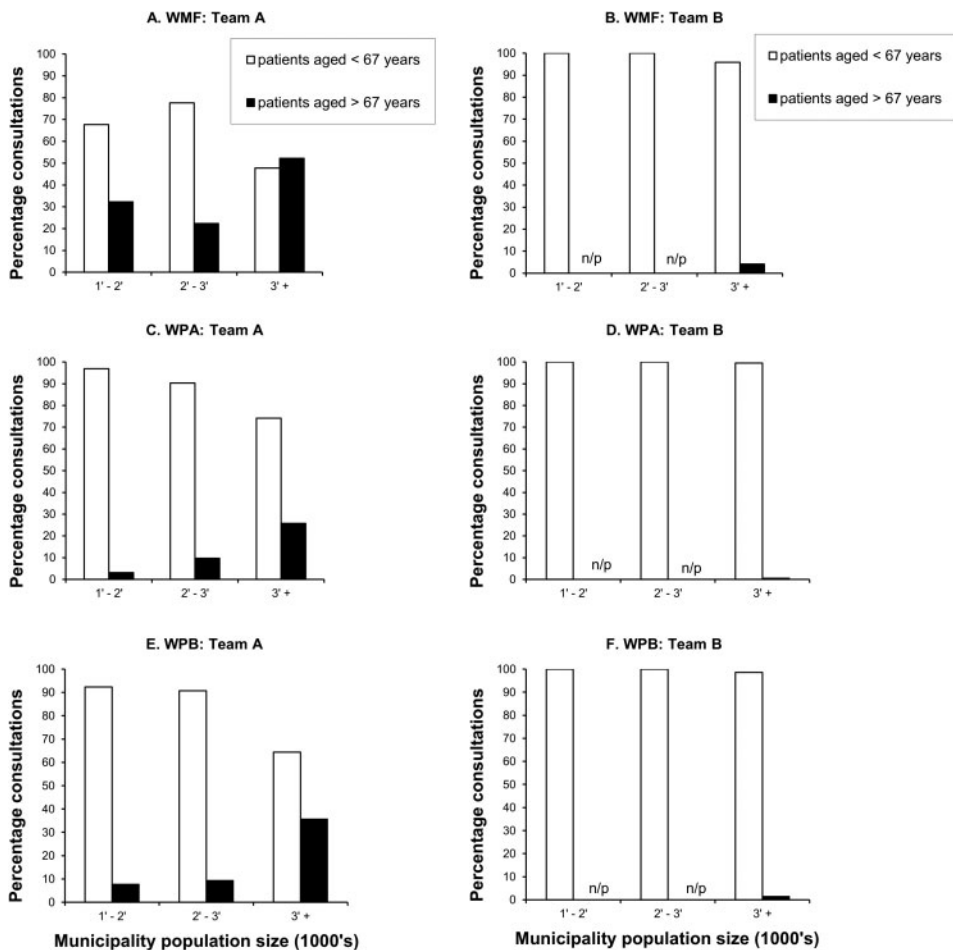


Figure 5. Age-distribution of the percentage consultations in sub-codes with greatest rehabilitation activity recorded by teams A and B. n/p, no patients.

Norwegian Medical Association revealed that in 2005, patients aged 80 years and older accounted for almost 22% of all hospital bed occupancy, with the elderly constituting the majority of discharge-ready patients who, in turn, are responsible for 123,000 daily hospital bed occupancies in 2010 (Medical Association, The Norwegian. 2012). This trend seems to be more prevalent in Norway as hospitalization rates of those 65 years and older are higher in Norway than in the other Scandinavian countries (Huseby 2005). This bottleneck situation, which has led to management problems in the health care service chain, has been ascribed to the lack of bed capacity in the nursing homes administered by the municipal health care services (Tingvoll, Sæterstrand, and Fredriksen 2010; Garåsen 2012). These developments have, among others, led to the discharge of care-needy elderly who experience inadequate post-operative care and rehabilitation at the municipal health care services level (Paulsen and Grimsmo 2008; Tingvoll and Fredriksen 2011). For the Coordination Reform to achieve its goals with regards to the rehabilitation needs of the elderly, at least two aspects of the municipal health care service needs to be

addressed, i.e. (1) bed capacity of the nursing/convalescent homes and (2) increasing rehabilitation capacity (number of municipality-based ambulatory teams). The ideals of the Coordination Reform are consistent with studies which demonstrated the benefit of interdisciplinary at-home rehabilitation treatment of the elderly and patients with chronic illnesses (Wilson et al. 1999; Hayward 2005; Vass et al. 2007; Brillhart, Heard, and Kruse 2001; McColl et al. 2009; Ranheim et al. 2010), as opposed to multidisciplinary in-patient rehabilitation whose efficacy has been questioned (Ollonqvist et al. 2007, 2008; Johansson, Eklund, and Gosman-Hedstrom 2010). Prioritizing rehabilitation may lessen the bottlenecks experienced at the level of the municipal health care services (Tingvoll and Sæterstrand 2008). Thus, our findings of lower rates of rehabilitation consultations with the elderly may therefore be an underestimate of the rehabilitation needs of this patient group.

Another often neglected aspect in this whole debate is the capacity of the municipality to deliver, as proposed by the Coordination Reform. It is uncertain whether the numerous small municipalities have the staff capacity to always provide optimal health care to their patients and elderly (Braaten and Kvanvik 2011; Health Directorate 2011b). Our findings of low percentages of consultations involving the elderly in the smaller municipalities, and the near absence of any activity in two of the four teams studied highlight these challenges. Being mindful that the data could indeed reflect the rehabilitation needs of the working age population, it is nevertheless well known that care of the elderly in any given municipality in Norway constitutes a substantial portion of the budget, especially so in small municipalities in outlying areas (Braaten and Kvanvik 2011; Garåsen et al. 2008). For example, the one small municipality stated that it used the individual plan only with young people (Health Directorate 2011b) even though all patients, including the elderly, have a right to an individual plan for rehabilitation treatment (Thommesen 2004). This, coupled with the often difficult financial status facing most of the smaller municipalities, may place undue stress on the municipal health care system, all of which may have consequences for the provision of rehabilitation services. Personal communication with one of the rehabilitation teams revealed that the health authorities decided in 2010 to appoint two college-educated health care professionals to a geriatrics team with the expressed responsibility of servicing the rehabilitation needs of the elderly. Each municipality also tends to seek local temporary solutions to health care challenges (Health Directorate 2011b). As the rehabilitation activity of the geriatrics team is not included in the data presented here, the extent of their contribution to rehabilitation for the elderly is not known. The challenges outlined above are not unlike that experienced in other developed countries (Schulz, Leidl, and König 2004; Chung et al. 2008; Wang and Tsay 2012).

Overall, the findings of our study showed that the far majority of the 2992 consultations were recorded by way of three sub-codes under the main code *investigation and diagnostics* and by way of two of the three sub-codes in the *consultation, collaboration and training* main code. Rehabilitation activity recorded under the main code *consultation, collaboration and training* only focused on patient advice and consultation with or in collaboration with other persons and institutions. Surprisingly, the sub-code *training to cope* registered almost no consultations. Likewise, rehabilitation training in motor activity and movement, registered under the main code *treatment and practical training*, was surprisingly also very low. Feedback from one of the rehabilitation teams was that the NCMP coding system was too detailed, which led to only a few categories being used. Thus, there seems to

be a need for a more streamlined coding system and/or increased training for the ambulatory teams.

As underlined by the negative municipality population size-related trends affecting the elderly, two of the greatest challenges facing the municipal health care services are that of staff capacity and the future role of the municipality-based general practitioner (Rørtveit and Hunskaar 2012). The transfer of responsibility for rehabilitation to the municipal health care services, who are already understaffed, may place additional strain on an already somewhat overstretched primary health care system when the Coordination Reform is fully implemented. Current challenges facing the Coordination Reform include staff capacity problems at the municipal health services level (Health Directorate 2011b), e.g. the lack of occupational therapists in many municipalities, which was associated with increased waiting times, as reported by 62% of the interviewed municipality-based general practitioners (Auditor-General 2012). Demand for rehabilitation, and by implication the health care professional's time, may vary depending on the severity of the patients' illnesses, and also their own participation in the rehabilitation process, which varies from patient to patient (Alve et al. 2013). The latter, in turn, may also indirectly impact staff capacity due to the patient's right to participate in the planning process of their own rehabilitation, as contained in the individual plan. Even though recent guidelines from the health authorities further aimed to clarify the tasks of the two spheres of health care service, including requiring the signing of a formal collaboration agreement between each municipality and the hospital with regards to the discharge, habilitation and rehabilitation of the patient (Health Directorate 2012), personal feedback from one of the rehabilitation teams revealed that the team felt it was underutilized by the municipal health care services, and that they did not have any contact with the municipality-based general practitioner. A Danish study revealed that the incorporation of the general practitioner in home visits has already been considered a beneficial measure to avoid or prevent functional decline in Danish elderly (Vass et al. 2007). It has also been recommended that frail elderly patients should be screened for rehabilitation potential (Wells et al. 2003). The findings of the present study highlight the challenges facing the specialist health care ambulatory teams to provide comparative rehabilitation to patients residing in all municipalities. Follow-up of rehabilitation at the municipal health care level, which the municipalities themselves seem to be unsure about (Health Directorate 2011b), is a critical part of the patient's restoration process and is expected to become increasingly important under the new Coordination Reform (Medical Association, The Norwegian. 2012).

In conclusion, the introduction of the new Coordination Reform just before the projected elderly boom will require new ways of thinking from all stakeholders. Trends in organizational theory indicate that the most adaptable organization is one that employs a superior use of teams simultaneously as it is committed to the individual staff member (Miller 1997), and which demonstrates great flexibility because the stakeholders have the opportunity to overcome the constraints of time, space and structure (Kassab 2005). Hopefully, the effects of such new organizational thinking would trickle down to the level of the patient who can benefit from a holistic approach to rehabilitation.

## References

- Alve, G., V. H. Madsen, Å. Slettebø, E. Hellem, K. A. Bruusgaard, and B. Langhammer. 2013. "Individual Plan in Rehabilitation Processes: A Tool for Flexible Collaboration?" *Scandinavian Journal of Disability Research* 15 (2): 1–14. doi:10.1080/15017419.2012.676568.
- Auditor-General. 2012. "Riksrevisjonens undersøkelse om rehabilitering innen helstjenesten [The Auditor-General's Investigation of Rehabilitation in Health Care Services]," Report no. 11, 81 p. Oslo: Auditor-General.
- Braaten, K. E., and M. Kvanvik. 2011. "Hvor ble det egentlig av samhandlingsreformen [What Happened to the Coordination Reform]?" *Tidsskrift av Den Norske Legeforening* 131 (13–14): 1341.
- Brillhart, B., L. Heard, and B. Kruse. 2001. "Rehabilitation Nursing in Home Care." *Rehabilitation Nursing* 26 (5): 177–191. doi:10.1002/j.2048-7940.2001.tb01947.x.
- Chung, M.-H., N. Hsu, Y.-C. Wang, H.-C. Lin, Y.-L. Huang, R. L. Amidon, and S. Kao. 2008. "Factors Affecting the Long-Term Care Preferences of the Elderly in Taiwan." *Geriatric Nursing* 29 (5): 293–301. doi:10.1016/j.gerinurse.2007.09.003.
- Garåsen, H. 2012. "Unødvendige innleggelses [Unnecessary Admissions]" *Tidsskrift for Den norske legeforening* 132 (4): 385.
- Garåsen, H., J. Magnussen, R. Windspoll, and R. Johnsen. 2008. "Eldre pasienter i sykehus eller i intermedieravdeling i sykehjem - en kostnadsanalyse [Elderly Patients in Hospital or in an Intermediary Ward in the Nursing Home - A Cost Analysis]." *Tidsskrift for Den norske legeforening* 128 (3): 283–285.
- Hayward, K. S. 2005. "Facilitating Interdisciplinary Practice Through Mobile Service Provision to the Rural Older Adult." *Geriatric Nursing (New York, N.Y.)* 26 (1): 29–33. doi:10.1016/j.gerinurse.2004.11.011.
- Health Directorate, The. 2010. *Nasjonal retningslinje for behandling og rehabilitering ved hjerneslag* [National Guidelines for Treatment and Rehabilitation in Stroke]. Oslo: Helsedirektoratet.
- Health Directorate. 2011a. "SAMDATA spesialisthelsetjenesten 2010 [Comparative Data for Specialist Health Care Services 2010]," Sosial- og Helsedepartementet, 186p. Oslo: Helsedirektoratet.
- Health Directorate. 2011b. "Undersøkelse om rehabilitering i kommunene [An Investigation into Rehabilitation in the Municipalities]," Helsedirektoratet, 28p. Oslo: Helsedirektoratet.
- Health Directorate. 2012. "Avklaring av ansvars- og oppgavedeling mellom kommunene og spesialisthelsetjenesten på rehabiliteringsområdet [Clarification of Responsibility and Allocation of Tasks Between the Municipalities and Specialist Health Services in the Field of Rehabilitation]," Helse- og Omsorgsdepartementet, 70p. Oslo: Helsedirektoratet.
- Health Directorate, The., and A. S. Kith. 2010. "NCMP og NCSP - Klinisk prodesyrekodeverk 2010 [Norwegian Classification for Medical Procedures and the Norwegian Classification for Surgical Procedures - Clinical Procedure Coding System 2010]," Helse- og Omsorgsdepartementet. Bergen: Fagbokforlaget.
- Health Regulatory Authority, The. 1996. "Veileder i rehabilitering av slagrammede [Guidelines in the Rehabilitation of Stroke Patients]." *Veiledningsserie* 88p. Oslo: Statens helsetilsynet.
- Huseby, B. M. 2005. *Sykehusbruk blant eldre i Skandinavia i 2002* [Hospital Use among Elderly in Scandinavia in 2002]. Oslo: SINTEF Helse.
- Johansson, G., K. Eklund, and G. Gosman-Hedstrom. 2010. "Multidisciplinary Team, Working with Elderly Persons Living in the Community: A Systematic Literature Review." *Scandinavian Journal of Occupational Therapy* 17 (2): 101–116. doi:10.3109/11038120902978096.
- Kassah, B. L. 2005. *Ser du meg? En studie av relasjonsdannelser og selvrepresentasjon i distribuerte grupper* [Do You See Me? A Study of the Formation of Relationships and Representations of Self in Virtual Teams]. Institutt for Sosiologi, University of Tromsø, Tromsø.
- Lovdata Foundation, The. 2011. *Forskrift om habilitering og rehabilitering, individuell plan og koordinator* [Regulations Concerning Habilitation and Rehabilitation, Individual Plan and Coordinator]. <http://www.lovdata.no/for/sf/ho/ho-20111216-1256.htm>.
- McColl, M. A., S. Shortt, M. Godwin, K. Smith, K. Rowe, P. O'Brien, and C. Donnelly. 2009. "Models for Integrating Rehabilitation and Primary Care: A Scoping Study."

- Archives of Physical Medicine & Rehabilitation* 90 (9): 1523–1531. doi:10.1016/j.apmr.2009.03.017.
- Medical Association, The Norwegian. 2012. “Godt å bli gammel i Norge? - Fra ord til handling i eldreomsorgen [Great to be old in Norway? - From Word to Action in Care of the Elderly].” In *Statusrapport 2012*, edited by M. Kvanvik, J. Fryjordet, T. Carlsen, S. U. Mjelva and A. L. Shuja, 46. Oslo: Den Norske Legeforening.
- Miller, D. 1997. “The Future Organisation: A Chameleon in its Glory.” In *The Drucker Foundation: The Organisation of the Future*, edited by F. Hesselbein, M. Goldsmith and R. Beckhard, 119–126. New York: Jossey-Bass Publisher.
- Ministry, Health and Care. 2008. “Nasjonal strategi for habilitering og rehabilitering 2008–2011 [National Strategy for Habilitation and Rehabilitation 2008–2011].” Helse- og omsorgsdepartementet, 37p. Oslo: Helse- og omsorgsdepartementet.
- Ollonqvist, K., T. Aaltonen, S. L. Karppi, K. Hinkka, and S. Pontinen. 2008. “Network-Based Rehabilitation Increases Formal Support of Frail Elderly Home-Dwelling Persons in Finland: Randomised Controlled Trial.” *Health & Social Care in the Community* 16 (2): 115–125. doi:10.1111/j.1365-2524.2007.00733.x.
- Ollonqvist, K., R. Gronlund, S. L. Karppi, U. Salmelainen, L. Poikkeus, and K. Hinkka. 2007. “A Network-Based Rehabilitation Model for Frail Elderly People: Development and Assessment of a New Model.” *Scandinavian Journal of Caring Sciences* 21 (2): 253–261. doi:10.1111/j.1471-6712.2007.00464.x.
- Paulsen, B., and A. Grimsmo. 2008. “God vilje - dårlig verktøy: om samhandling mellom sykehus og kommunale omsorgstjenester ved utskrivninger av omsorgstrengende eldre [Good Will - Bad Tools: On Collaboration Between the Hospitals and Municipal Health Care Services with Regards to the Discharge of Care-Needy Elderly].” In *SINTEF Rapport* (Report no. A7877), 156p. Trondheim: SINTEF Helse. Accessed November 1 2010. [http://www.helsedirektoratet.no/vp/multimedia/archive/00079/Rapport\\_God\\_vilje\\_-\\_79709a.pdf](http://www.helsedirektoratet.no/vp/multimedia/archive/00079/Rapport_God_vilje_-_79709a.pdf).
- Public Health, Institute for. 2012. *Helsetilstanden i Norge: Eldre - andelen over 65 år i befolkningen* [State of Health in Norway: The Elderly - the Proportion Aged 65 Year and over in the Population]. <http://www.fhi.no>.
- Ranheim, T., S. Flottorp, A. Austvoll-Dahlgren, and M. Johansen. 2010. *Effekter av tverrfaglige ambulante tjenester for pasienter med kroniske sykdommer* [Effects of Multidisciplinary Ambulant Services for Patients with Chronic Diseases]. Oslo: Nasjonalt kunnskapssenter for helsetjenesten.
- Rørtveit, G., and S. Hunskaar. 2012. “Samhandlingsreformen og universitetene [The Coordination Reform and the Universities].” *Tidsskrift for Den norske legeforening* 129 (16): 1622. doi:10.4045/tidsskr.09.0821.
- Schulz, E., R. Leidl, and H.-H. König. 2004. “The Impact of Ageing on Hospital Care and Long-Term Care—the Example of Germany.” *Health Policy* 67 (1): 57–74. doi:10.1016/S0168-8510(03)00083-6.
- Slettebø, Å., E. Hellem, K. A. Bruusgaard, V. H. Madsen, G. Alve, and B. Langhammer. 2012. “Between Power and Powerlessness – Discourses in the Individual Plan Processes, a Norwegian Dilemma.” *Scandinavian Journal of Disability Research* 14 (3): 270–283. doi:10.1080/15017419.2011.574846.
- Storting White Paper, no. 21. 1998–1999. “Ansvar og meistring: mot ein heilskapleg rehabiliteringspolitikk [Responsibility and Coping: Towards a Holistic Rehabilitation Policy],” edited by Helse- og omsorgsdepartementet.
- Storting White Paper, no. 47. 2008–2009. “Samhandlingsreformen: rett behandling - på rett sted - til rett tid [Coordination Reform: Right Treatment at the Right Place at the Right Time],” Helse- og omsorgsdepartementet.
- Thommesen, H. 2004. “Individuell plan: en type praksis: kommuneundersøkelse årsskiftet 2003/2004 [Individual Plan: A Practice: An Investigation of Municipalities at Year End 2003/2004].” SKUR-rapport, 3p. Bodø: SKUR.
- Tingvoll, W., T. Sæterstrand, and S. D. Fredriksen. 2010. “Kompetanse i tiltakskjeden - avdelingslederes erfaringer om utskrivninger av eldre pasienter fra sykehus [Skills in the Management Chain - Ward Managers Experiences on the Discharge of Elderly Patients from Hospital].” *Vård i Norden* 30 (1): 29–33.

- Tingvoll, W.-A., and S. D. Fredriksen. 2011. "Individuell tilrettelegging for eldre pasienter etter sykehusopphold [Individual Care Arrangements for Elderly Patients after Discharge from Hospital]." *Vård i Norden* 31 (3): 40–44.
- Tingvoll, W.-A., and T. Sæterstrand. 2008. "Sats på rehabilitering [Emphasise Rehabilitation]." *Tidsskriftet Sykepleien* 96 (13): 84–85. doi:10.4220/sykepleiens.2008.0017.
- Vass, M., K. Avlund, C. Hendriksen, L. Philipson, and P. Riis. 2007. "Preventive Home Visits to Older People in Denmark." *Zeitschrift für Gerontologie und Geriatrie* 40 (4): 209–216.
- Wang, H.-H., and S.-F. Tsay. 2012. "Elderly and Long-Term Care Trends and Policy in Taiwan: Challenges and Opportunities for Health Care Professionals." *The Kaohsiung Journal of Medical Sciences* 28 (9): 465–469. doi:10.1016/j.kjms.2012.04.002.
- Wells, J. L., J. A. Seabrook, P. Stolee, M. J. Borrie, and F. Knoefel. 2003. "State of the Art in Geriatric Rehabilitation. Part I: Review of Frailty and Comprehensive Geriatric Assessment." *Archives of Physical Medicine & Rehabilitation* 84 (6): 890–897. doi:10.1016/S0003-9993(02)04929-8.
- Wilson, K. G., N. Seguin, A. Goodman, G. Greene, and M. Pole. 1999. "Rural Health Professionals' Satisfaction with a Rehabilitation Mobile Outreach Program." *Archives of Physical Medicine & Rehabilitation* 80 (3): 332–338. <http://linkinghub.elsevier.com/retrieve/pii/S0003999399901478?showall=true>.