Tidsskriftet Tidsskrift for Den norske legeforening

The role of the district medical officer after the pandemic – a qualitative study

ORIGINAL ARTICLE

PER OVE HAGESTUEN

per.ove.hagestuen@ringebu.kommune.no
Ringebu municipality
Author's contribution: concept, execution of the study, data collection, analysis and interpretation, and drafting of the manuscript.
Per Ove Hagestuen, MSc in health administration, specialist in general practice and community medicine. District medical officer and general practitioner.
The author has completed the ICMJE form and declares no conflicts of interest.

ELI FEIRING

Institute of Health and Society
University of Oslo
Author's contribution: formulation of the research questions, data collection, analysis and interpretation, and drafting of the manuscript.
Eli Feiring, political scientist and professor of health policy and medical ethics.
The author has completed the ICMJE form and declares no conflicts of interest.

BACKGROUND

While district medical officers' role was described as unclear and lacking visibility before the COVID-19 pandemic, their community medicine expertise became highly significant in the management of the pandemic. We wished to investigate district medical officers' perceptions of their role after the pandemic was over.

MATERIAL AND METHOD

The study was designed as a theory-driven qualitative interview study. Twelve district medical officers in the Norwegian county of Innlandet were interviewed in the autumn of 2022. The data were subjected to thematic analysis.

RESULTS

The study identified a number of factors associated with the capabilities, motivation, and structural and organisational framework of district medical officers that were assumed to impact on the execution of their role and participation in decision-making processes in the local authorities. The district medical officers found that their role had become clearer and more visible during the pandemic, but they had low expectations of being more involved and having a stronger voice in the development of future health services in the municipalities. One proposed measure is to devise a guide for the district medical officer function, such that the local authorities are given clear guidelines on the district medical officers' areas of responsibility and the issues in which they should be involved.

INTERPRETATION

The district medical officers felt that 'the pandemic effect is over', and that they had to fight their way back into important decision-making arenas. Measures at individual and organisational level can help ensure the optimal use of district medical officers' community medicine expertise in the municipalities.

Main findings

The district medical officers in the study found that they became a key resource in the infection control and preparedness efforts during the COVID-19 pandemic, but subsequently experienced reduced visibility.

The capabilities and motivation of district medical officers as well as the structural and organisational frameworks were assumed to impact on the execution of their role and participation in decision-making processes in the local authorities.

In order to ensure that they become an important driving force in the development of health services in the municipalities, the district medical officers called for normative and organisational measures as well as measures to deepen the understanding of their role and identity in normal circumstances.

All municipalities are required by law to have a district medical officer (1). The person appointed will serve as a medical adviser to all sectors and entities in the municipality and play a crucial coordinating role in the local authority's dialogue with general practitioners (GPs). District medical officers also have specific duties as defined in the Control of Communicable Diseases Act, the Public Health Act, the Health and Social Preparedness Act and the Compulsory

Mental Health Care Act (2). Meanwhile, it is the local authorities themselves that determine how the district medical officer function is organised. The number of hours in the position, its placement within the organisational hierarchy and its duties vary.

District medical officers became a key resource for the infection control and preparedness efforts during the COVID-19 pandemic (3). This was in stark contrast to before the pandemic, when local authorities often lacked awareness of how the expertise of district medical officers could and should be utilised in a planning and medical capacity (4, 5). While district medical officers described their role as unclear and not very visible before the pandemic and felt excluded from decision-making processes in the local authorities (4), they were referred to as 'the most important advisers in crisis management during the pandemic' (3, 6, 7). In national surveys of district medical officers conducted in the autumn of 2020 and 2021, as well as the more detailed investigations by the COVID-19 Commission into the district medical officer function in selected municipalities, many district medial officers reported that both the municipal management and the local community now had a heightened appreciation for their expertise and work (8). They felt that society's perception of the role of district medical officer had changed somewhat as a result of the pandemic. This is consistent with the study by Hungnes et al., which showed that the importance of district medical officers' community medicine expertise increased during the pandemic and that they provided valuable input to decision-making processes and in the follow-up of local and national measures (3).

How do the district medical officers perceive their role and their opportunities to influence decision-making in the local authorities post-pandemic? What factors do they think impact on their participation in decision-making processes in the local authorities? In the following, we report on a qualitative study that poses these questions. The purpose of the study was to gain a deeper insight into the possible challenges of executing the role of district medical officer post-pandemic.

Material and method

Sample and data collection

The study was designed as a theory-driven qualitative interview study (9, 10). We aimed to recruit participants from small, medium-sized and large municipalities, in both full-time and part-time positions, and with difference lengths of service and roles within the health service at municipal level. The first author sent written information about the study to 14 district medical officers in the Norwegian county of Innlandet and invited them to participate. One declined due to a heavy workload, and one did not respond to the invitation. Table 1 gives an overview of the 12 participants.

Table 1

Overview of the sample of district medical officers in the study (*N* = 12).

Sex	Years of experience	Specialisation in community medicine	FTE percentage (%)
Male	5–10	Not a specialist	< 50
Male	5–10	In specialty training	100
Male	5–10	Specialist	100
Female	< 5	Specialist	< 50
Female	5–10	Specialist	100
Male	5–10	Specialist	100
Female	< 5	In specialty training	100
Female	< 5	In specialty training	≥ 50
Female	5–10	Specialist	≥ 50
Female	< 5	In specialty training	< 50
Male	5–10	In specialty training	100
Male	5–10	Not a specialist	< 50

The participants were interviewed by the first author in the period from mid-August to the end of October 2022. A semi-structured interview guide was used (see the appendix).

The participants were asked about their background, employment terms, organisation of the role of district medical officer, as well as their experience of the role in normal circumstances, during the COVID-19 pandemic and after the end of lockdown and protection control measures in the spring of 2022. The interviews were conducted by the first author. Some were face to face and some were via Teams. The interviews lasted just under 60 minutes and video recordings were made. Each interview was transcribed in its entirety by the first author and de-identified. The data were stored on a password-protected computer.

Theoretical framework and data analysis

The data were analysed thematically using a theory-based framework to identify, analyse and report patterns in the empirical material (11). We chose a framework that systematises conditions for behaviour changes, the so-called COM-B model (11). The model shows how behaviour is influenced by the interaction between three factors: capabilities, opportunities and motivation. The model was developed based on behaviour theory and is widely used in international literature on conditions for behaviour change (12). The overarching factors are often more closely defined using the Theoretical Domains Framework (TDF), which groups a range of specific behaviour conditions into 14 domains (13). We chose to follow this approach.

In brief, capabilities refer to an individual's psychological and physical capacity to engage in the desired behaviour. The framework describes this as knowledge, skills, attention and behavioural regulation. Opportunities denote the external physical and socio-cultural factors that enable or hinder behaviour. These are specified in the domains of social influences, and environment context and resources. Motivation encompasses the reflexive and automatic processes that influence individual behaviour. Motivation is specified in role and identity, beliefs about capabilities, beliefs about consequences, optimism, intentions, goals, reinforcement and emotion.

The behaviour change wheel was developed to narrow down the range of possible measures that are likely to be effective for achieving a goal (12). For instance, educational measures would be suitable for enhancing knowledge and motivation, while organisational measures would be applicable if physical or social factors are hindering the desired behaviour. Guidelines are recommended if normative measures are needed.

The framework was used to categorise data into thematic categories. The first author roughly sorted the data into the main categories of capabilities, opportunities and motivation. Then, both authors sorted the data into subcategories (TDF domains) according to the framework. We further categorised the data within the subgroups to some extent. Due to the qualitative design of the study, assessing the importance of different factors based solely on the number of times they were mentioned made little sense. We applied the following recommendation: a relatively high frequency, conflicting beliefs and particularly strong beliefs (13). Disagreements were resolved through discussion.

Ethics approval

Before starting the interviews, the project outline, interview guide, information letter and consent form were submitted to the Norwegian Centre for Research Data (now known as Sikt), which considered the processing of data in the study to be statutorily compliant (project 835080). All study participants provided informed written consent for participation.

Results

We identified a number of factors that were believed to influence the execution of the district medical officer's role and participation in decision-making processes in the local authorities: the district medical officer's knowledge and skills in community medicine and their perceptions of these; the autonomy, clarity and visibility of the role; expectations regarding what involvement in decision-making processes in the local authority will lead to; expectations for future involvement; and emotions such as ambivalence, uncertainty, concern, but also well-being. Various organisational and structural framework conditions also emerged, such as understanding and appreciation of expertise, information flow, shared situational understanding, access to discussion arenas, case preparation and decision-making arenas, involvement in decision-

making processes, placement in the organisational hierarchy and normative frameworks. The findings are summarised in Table 2. We also identified understandings on potential areas for development, which are summarised in Table 3.

Table 2

Factors that promote or hinder the execution of the district medical officer's role. A single cross (hinder or promote) indicates predominant agreement across the dataset. Crosses in both categories indicate variation. No cross indicates that the factor was not identified in the dataset and was therefore not categorised as either hindering or promoting.

Main categories (COM-B model)	Subcategories (TDF)	Identified factors	Hinders	Promotes
Capabilities	Knowledge	Community medicine knowledge		x
	Skills	Community medicine skills		x
	Attention	-		
	Behavioural regulation	-		
Motivation	Role	Role – autonomy		x
		Role – clarity	x	
		Role – visibility	x	
	Beliefs about capabilities	Beliefs about own capabilities		x
	Beliefs about consequences	Beliefs about consequences of involvement		x
	Optimism	Expectations for future involvement	x	
	Intentions	-		
	Goals	-		
	Reinforcement	-		
	Emotions	Ambivalence and uncertainty	x	
		Concern	x	
		Freedom to shape the role		x
Opportunities	Social influences	Understanding of expertise	x	x
		Appreciation of expertise	x	x
	Environment context and resources	Information flow	x	x

Main categories (COM-B model)	Subcategories (TDF)	Identified factors	Hinders	Promotes
		Situational understanding	x	x
		Access to discussion arenas	x	x
		Involvement in case preparation	x	x
		Access to decision-making arenas	x	x
		Involvement in decision-making processes	x	x
		Placement in the organisational hierarchy	x	x
		Normative frameworks	x	

Table 3

The district medical officer as a driving force in the development of health services: goals and examples of areas to be developed.

Goal	Examples of areas to be developed
Enhance individual capabilities	Enhance understanding of the role and identity in normal circumstances Enhance the development of expertise and colleague support Enhance community medicine expertise through education
Enhance individual motivation	Further develop professional identity Maintain a high degree of autonomy Strengthen involvement and influence in decision-making processes
Enhance organisational opportunities	Develop guidelines to clarify the role within the municipal organisation and governance system Raise awareness among the municipal management about district medical officers' expertise Establish formal and informal community medicine forums

Capabilities and motivation

The district medical officer's knowledge, expertise and experience during pandemics and in normal circumstances were considered to promote the execution of the role.

'*The district medical officer possesses additional expertise that can be valuable. It became clear how important it is to have an expert in such a key role (during the pandemic).*' (Participant 2)

During the pandemic, the role of the district medical officer became more apparent and its importance easier to substantiate.

'*It's now very clear what a district medical officer is and how useful it is to have professional medical assessments.*' (Participant 12)

However, one of the participants did not share this view and said:

'*I don't think my role became clearer during the pandemic. On the contrary, you become a sort of jack-of-all-trades that people call to solve problems, so in many ways, it has perhaps made the role even more undefined*.' (Participant 6)

The community medicine expertise that district medical officers had used during the pandemic was in less demand by the municipal management after the pandemic was over. The participants expressed low expectations of becoming more involved over time. All participants expressed that they perceived the role as barely visible since the end of lockdown and protection control measures in spring 2022.

'*When things settle down, you go back to everyday life as it was*.' (Participant 2)

Access to decision-making arenas was also considered better during the pandemic than afterwards:

'*The pandemic was a special time when all of our input was listened to, both by politicians and the administration. This is not the case in normal circumstances*.' (Participant 11)

The lack of demand for the district medical officers' expertise was considered a barrier to involvement in decision-making processes and a source of concern.

'*What worries me the most is the cases where I should perhaps have been in the loop, but that I'm not familiar with and am not even aware of*.' (Participant 3)

When the participants themselves were called on to define the role of the district medical officer, it proved to be difficult. The role was described as *vague, expansive and diffuse*, and challenging to fulfil and execute in an efficient and satisfactory manner. The role's lack of clarity and visibility externally hindered its execution. In contrast, the role was also described as autonomous, with a high degree of freedom to shape it. This freedom was considered to be an important motivating factor. However, participants also highlighted the responsibility for further developing the role.

'*I think (...) we need to carve out a place for ourselves and make ourselves relevant. It's important for the municipalities to have district medical officers with expertise in community medicine*.' (Participant 9)

Nevertheless, striking a balance between autonomy and involvement in the decision-making was considered a challenge.

'I mostly manage my daily work myself, so in that sense, I have autonomy, but I don't have the influence I desire.' (Participant 5)

On the one hand, the participants wanted clearer frameworks for the position in order to promote opportunities for influence. On the other hand, they wanted to maintain the flexible nature of the position. This ambivalence contributed to a sense of uncertainty.

'The good thing about being a district medical officer is the freedom (...) I'm not sure how to more closely define the role without compromising the freedom we have.' (Participant 7)

Opportunities

The municipal management's and local community's understanding and appreciation of the district medical officer's expertise was considered important for making decisions. The extent to which participants felt seen and heard varied.

'*The municipal management knows my expertise, the pandemic has proven invaluable in that respect. The challenge is to maintain the focus.*' (Participant 7)

'*I'm rarely heard and involved in planning and decision-making processes, and I also don't feel involved in case preparations.*' (Participant 5)

'*I feel that decisions are made without me being sufficiently involved, and they (the municipal management) make decisions that are not in line with my recommendations.*' (Participant 2)

Several organisational factors were highlighted as crucial for influencing municipal processes, such as a seamless and efficient flow of information between the district medical officer and the decision-making bodies in the local authority, shared situational understanding, suitable arenas for exchanging opinions and discussing relevant issues, involvement in case preparations, access to decision-making arenas and involvement in decision-making processes. Some participants believed that these factors existed, while others did not. The role of adviser was highlighted by some as a factor that could hinder the opportunities for influence. All participants had an advisory function in the municipal organisation, but this role was described as challenging. The municipal management could be tactical about the issues for which they sought advice from the district medical officer.

'I'm faced with "you're a medical adviser, so it's not you who decides" (...). If they (the municipal management) feel that I can be useful to them, they contact me, because my involvement will lend greater legitimacy.' (Participant 2)

The district medical officer's placement in the organisational hierarchy of the health service at municipal level was also described as a potential barrier to influencing decision-making processes in the local authorities. The extent to which placement in the organisational hierarchy was perceived as satisfactory varied.

'I feel that my placement under the chief municipal executive, head of the municipal health and care services, and head of the health sector makes it challenging and more demanding to carry out the district medical officer role efficiently (...). The role is cross-sectoral, but (...) is perceived (...) as a more health-related role.' (Participant 2)

'I would prefer to be part of the chief municipal executive's staff, rather than pigeon-holed in a specific municipal department.' (Participant 11)

The statutory and contractual framework was highlighted as an important factor in maintaining the distinct professional position of the district medical officer in the local authority. Several participants pointed out that the current statutory and contractual framework is insufficient, and they believed that guidelines could be beneficial.

'It would be nice to have legislation that made it clear that we should be utilised, listened to and have a voice. It's difficult to be heard when we are so far down in the organisational hierarchy and the opportunities for penetrating the line of communication are so limited.' (Participant 5)

Meanwhile, others were apprehensive about using legislation for further control and believed that micromanagement could have a demotivating effect.

'It probably wouldn't be wrong to have a bit more structure and framework around the role. But I'm concerned about making the role too bogged down with legislation and rules.' (Participant 8)

Discussion

Prior to the COVID-19 pandemic, many district medical officers perceived their role as one that was in the background and had little influence and limited access to decision-making arenas (4). During the pandemic, however, they became a key resource and important contributor to the decision-making and coordination in their local authority's pandemic management (8). The study by Hungnes et al. also showed that the district medical officers' community medicine expertise was appreciated and in demand by local authorities (3). Their expertise and knowledge of local conditions were undoubtedly a success factor in the pandemic management, and the role of the district medical officer as a link between local communities and national authorities was crucial in building the necessary public trust and support for infection control measures.

In our study, district medical officers were asked how they now, in the wake of the pandemic, perceive their role and their opportunities to influence decision-making in the local authorities, and which factors affect these opportunities. The study shows that district medical officers who were interviewed after more than two years of a pandemic and strict infection control measures perceived their role as diffuse. They were concerned about their lack of visibility in the municipal organisation and the fact that they were once again far less involved in decision-making processes in the local authority. Despite their extensive experience, knowledge and expertise in community medicine, they felt that the municipal management and decision-makers were unaware of, and thus not utilising, this competence. They found that they had to claw their way back into important decision-making arenas. The effect of the pandemic already seemed to have faded, and the district medical officers in this study described it as 'a bit like starting over again'.

The COM-B framework states that behaviour is created through the interaction between the individual's capabilities, motivation and the environmental context. In turn, motivation is influenced by capabilities, opportunities and

behaviour. In our study, the participants experienced and valued a high degree of freedom to shape the role of district medical officer. While expressing that it could be challenging to strike a balance between autonomy and influence, they believed that continued autonomy was crucial for effectively executing the role of district medical officer, and they considered role autonomy to be a motivating factor. However, they perceived the role as unclear and lacking external visibility, as echoed in previous studies (4), and this was considered a barrier to executing the role of district medical officer.

Several factors, mainly at organisational level, were highlighted by participants as potential obstacles to involvement in decision-making processes in the local authority. Unclear placement in the organisational hierarchy, inadequate support and unclear expectations made it difficult to define and fulfil their role. This is in line with national surveys of district medical officers (8) and the study by Fossberg and Frich, which demonstrated that organisational frameworks, expectations and support from the municipal management impact on district medical officers' opportunities to develop a community medicine identity (4).

Overall, the findings from this study indicate that there may be a need to strengthen the role of the district medical officer, thereby helping to enhance their capabilities and motivation to further develop the role.

A survey has shown that there is broad agreement among district medical officers that national authorities must help to strengthen and stabilise the role of the district medical officer, and local authorities must recognise the value of their expertise and responsibilities even when there is no pandemic (5). Rather than putting in place legislation for district medical officers' duties, which could threaten their autonomy, guidelines for the role could be a way of fostering proximity to and involvement in decision-making processes in the local authority. These could serve as a guide for which duties district medical officers can and should be responsible for and the types of issues that it might make sense to involve them in. This is in line with the COVID-19 Commission's recommendations (8).

Planning, organising and operating health services is a major and challenging task for local authorities. It requires expertise and knowledge in community medicine and must be carried out as part of a collaboration. Going forward, both the district medical officers and the municipal management bear a significant responsibility for engaging in dialogue and arriving at a shared understanding of what is needed for optimal utilisation of community medicine expertise within the municipality. It is crucial to capitalise on the heightened appreciation that both the management and general public developed for district medical officers and community medicine during the pandemic. Only in this way can district medical officers have a clearer voice and greater influence in shaping future health services in the municipalities.

Strengths and weaknesses of the study

Although the study is small and has a limited number of participants, the district medical officers have varied backgrounds in terms of specialisation, number of hours they work, placement within the organisational hierarchy and size of municipality. We do not know if the findings are transferable to other

parts of the country, but they are in line with our expectations based on previous studies of the role of district medical officers (3–5, 8). This strengthens the validity of the results. We employed a theory-based framework, which enabled systematic comparisons with other studies. This is a strength of the study.

The first author is a district medical officer (and doctor) with extensive experience in this role (specialist in community medicine) and in general practice (specialist in general medicine) in normal circumstances, during the pandemic and after the end of lockdown and infection control measures in spring 2022. He had the same points of reference as the other participants in the study and was also therefore extremely knowledgeable about the topic of the study. However, this proximity to the data entailed a limitation in terms of formulating research questions, selection and data analysis. Continuous discussions with the co-author, who does not share this prior understanding, were therefore crucial.

In this study, we only interviewed district medical officers and not other key players in the local authority. A broader range of interview subjects could have led to a deeper understanding. This could be the subject of a follow-up study. A follow-up study of groups, excluding district medical officers, such as the municipal management, could yield interesting findings. Similarly, conducting a larger scale study could help clarify whether the findings from this study are representative at a national level.

A follow-up study could also help shed light on why the current legislation is perceived as inadequate, particularly given that few roles carry as much direct legally mandated responsibility as that of the district medical officer.

Conclusion

The district medical officers in this study found that their role became clearer during the pandemic but that their expertise was less in demand post-pandemic. We have identified several factors that are expected to be of importance for developing a clearer role for district medical officers and can help make them an important driving force in the development of local authorities' health services. One possible measure is to draw up guidelines for the district medical officer function, providing local authorities with clear directions regarding the district medical officer's areas of responsibility and the types of issues in which they should be involved.

The article has been peer-reviewed.

REFERENCES

1. LOV-2011-06-24-30. Lov om kommunale helse- og omsorgstjenester m.m. (helse- og omsorgstjenesteloven). https://lovdata.no/dokument/NL/lov/2011-06-24-30 Accessed 20.6.2023.

2. LOV-2011-06-24-29. Lov om folkehelsearbeid (folkehelseloven). https://lovdata.no/dokument/NL/lov/2011-06-24-29?q=Lov%20om%20folkehelsearbeid%20(folkehelseloven). Accessed 20.6.2023.

3. Hungnes T, Vik E, Veddeng O. Kommunelegens rolle under koronapandemien – en kvalitativ studie. Tidsskr Nor Legeforen 2022; 142: 1391–5.

4. Fossberg BC, Frich JC. Kommuneoverlegers opplevelse av egen rolle. Tidsskr Nor Legeforen 2022; 142: 121–6.

5. Helsedirektoratet. Rapport – Nasjonal kartlegging av kommunelegefunksjonen. https://www.statsforvalteren.no/contentassets/cb92abdea3b14206bc7e224194ab8cbd/nasjonal_kartlegging_av_kommunelegefunksjonen__sammenfatning_av_alle_fylkesrapporter.pdf Accessed 20.6.2023.

6. Renaa T. Kommuneoverleger i spagat. Tidsskr Nor Legeforen 2022; 142: 99.

7. Berg SF. Kommunelegens plassering. Tidsskr Nor Legeforen 2022; 142: 1363.

8. NOU 22021:5. Myndighetenes håndtering av koronapandemien – del 2 – Rapport fra koronakommisjonen. https://www.regjeringen.no/no/dokumenter/nou-2022-5/id2910055/ Accessed 20.6.2023.

9. Malterud K. Kvalitative forskningsmetoder for medisin og helsefag. 4 utg. Oslo: Universitetsforlaget, 2018.

10. Tjora A. Kvalitative forskningsmetoder i praksis. 4 utg. Oslo: Gyldendal, 2021.

11. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol 2006; 3: 77–101. [CrossRef]

12. Michie S, van Stralen MM, West R. The behaviour change wheel: a new method for characterising and designing behaviour change interventions. Implement Sci 2011; 6: 42. [PubMed][CrossRef]

13. Atkins L, Francis J, Islam R et al. A guide to using the Theoretical Domains Framework of behaviour change to investigate implementation problems. Implement Sci 2017; 12: 77. [PubMed][CrossRef]

Publisert: 28. August 2023. Tidsskr Nor Legeforen. DOI: 10.4045/tidsskr.23.0039
Received 17.1.2023, first revision submitted 30.5.2023, accepted 20.6.2023.
Published under open access CC BY-ND. Downloaded from tidsskriftet.no 6 July 2026.