Out-of-hours primary health care services in Norway - out of balance?

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Aviemore, Scotland 13.05.08

AIMS

New Models of Care:

The organization of out-of-hours primary health care services in Norway has been changing from municipal-based to larger inter-municipal co-operations

The National Centre for Emergency Primary Health Care wanted to investigate to which extent this shift has taken place

Background

The 431 municipalities in Norway are responsible for organizing out-of-hours primary health care services

General practitioners are obliged to participate in the local OOH services

Recruiting problems, heavy on-call work load, and lack of support has reduced the quality of service

OOH services in Norway

Organization

Size - inhabitants and area

Number of phone calls

Documentation

Transportation

GP’s participation

Table 1 Municipal and intermunicipal out-of-hours services (afternoon, evening and night/weekend, population in the municipal district according to number of cooperating municipalities

umber of municipalities	No. of intermunicipal cooperatives	Total number of municipalities	Mean number inhabitants
fternoon/evening			
unicipal out-of-hours services		161	13 612
termunicipal cooperatives (number of municipalities)			
2	67	133[1]	14 060
3	15	45	36 655
4	7	27[1]	44 071
5	3	15	48 399
6	2	12	94 040
7	3	21	32 003
9	1	9	100 324
10	1	10	84 947

Size of district

Intermunicipal cooperation is most common….

...in places with few inhabitants:
75% of municipalities with less than 2500 inhabitants

...in smaller municipalities:
78% of municipalities < 200km^2

ble 2 Proportion of municipalities (%) with municipal and intermunicipal out-of-hours-services in afternoons/evenings, nights/weekends acc to number of participating municipalities. Described for all municipalities and according to size of the district (measured in number of inhabita d area)

	Afternoon/night				Night/ weekend			
	Municipal out-of-hours service	Intermunicipal cooperation			Municipal out-of-hours service	Intermunicipal cooperation		
		2 municipalities	3–5 municipalities	≥ 6 municipalities		2 municipalities	3–5 municipalities	≥ 6 mun palitie
municipalities	37	31	20	12	31	27	26	17
nicipality size (inhabitants)								
500 (n = 132)	35	38	17	10	25	32	24	20
01–5 000 (n = 108)	39	35	17	9	31	32	24	14
01–10 000 (n = 90)	45	26	22	7	34	20	31	14
001–20 000 (n = 58)	40	24	21	15	33	22	21	24
001–100 000 (n = 40)	35	20	33	13	33	18	33	18
00 000 (n = 5)	60	20	20	0	60	20	20	0
nicipality size (area)								
00 km² (n = 103)	27	27	27	19	21	24	34	20
1–500 km² (n = 122)	37	30	20	12	28	21	26	25
1–1 000 km² (n = 103)	42	35	16	7	29	30	22	18
000 km² (n = 105)	50	31	16	2	44	31	20	5

Phone calls
Local Medical Emergency Communication Centers

Average 11 000/year (140-90 000)

25% < 1800 phone calls

50% < 4000

75% < 14 000

Annual number of phone calls per inhabitant

25% < 0.44

50% < 0.72

75% < 1.24

Substudy (n=23000)

Advice by telephone, nurse	25% (17-34%)
Advice by telephone, doctor	10% (4-21%)
Consultation with a doctor	60% (30-70%)
Home visit by doctor	2%
Call-out of doctor and ambulance	2%

Documentation

Advice given to the patient by phone was

always documented in 72% of the municipalities

usually documented in 21% of the municipalities

rarely/never documented in 7% of the municipalities

Transportation

25% of the municipalities had no ambulance
50% had 1 ambulance
25% had 2 or more ambulances
10% had an ambulance boat

In emergency situations
- 50% of the doctors on-call would use their private car
- 25% would use an ambulance
- the remaining would use taxi, boat or an emergency service car

Travelling time

The longest travelling time, ambulance to patient and patient to casualty clinic, is on average about 45 min

In 50% of the municipalities, the ambulance can reach all patients within half an hour, and in 90% of them within an hour

Table 3 Longest journey time (in minutes) from ambulance station to patient, and from the patient to the casualty clinic. Described for all municipalities and according to size of the district (measured in number of inhabitants and area)

	Ambulance to patient Mean (max)	Patient to casualty clinic Mean (max)
All municipalities	41 (120)	51 (180)
Municipality size (inhabitants)		
≤ 2 500 (n = 132)	45 (120)	60 (180)
2 501–5 000 (n = 108)	44 (110)	53 (120)
5 001–10 000 (n = 90)	40 (120)	46 (150)
10 001–20 000 (n = 58)	35 (120)	42 (120)
20 001–100 000 (n = 40)	33 (90)	41 (90)
> 100 000 (n = 5)	24 (30)	31 (45)
Municipality size (area)		
< 200 km^2 (n = 103)	27 (75)	31 (120)
201–500 km^2 (n = 122)	40 (120)	48 (150)
501–1 000 km^2 (n = 103)	44 (120)	55 (180)
> 1 000 km^2 (n = 105)	52 (120)	67 (180)

General practitioners participation

In 1/2 of the municipalities, all the GP's participate in the OOH work

In 1/3 of the municipalities, 75% of the GPs participate

In 1/6 of the municipalities, < 50% of the GPs participate

Participation is highest in smaller municipalities

Tendency last years: fewer GPs participate

Table 4 RGP participation in out-of-hours services by municipality size (number of inhabitants and area)

	Percentage of municipalities where all RGPs participate in out-of-hours services	Percentage of RGPs participating in out-of-hours services	Percentage of RGPs exempted from out-of-hours services
All municipalities (n = 433)	47	72	20
Municipality size (inhabitants)			
≤ 2 500 (n = 132)	78	85	10
2 501–5 000 (n = 108)	60	87	14
5 001–10 000 (n = 90)	29	76	22
10 001–20 000 (n = 58)	8	72	24
20 001–100 000 (n = 40)	5	66	28
> 100 000 (n = 5)	0	66	11
Municipality size (area)			
< 200 km^2 (n = 103)	40	74	24
201–500 km^2 (n = 122)	46	69	15
501–1 000 km^2 (n = 103)	52	77	20
> 1 000 km^2 (n = 105)	50	70	28

Conclusions

The increase in inter-municipal co-operations in out-of-hours services, which has been observed in Norway over the last decade, seems to have declined the last couple of years

This might be due to economical and geographical factors

Some are concerned about possible negative effects of the centralisation of out-of-hours services

With the increasing number of GP's not participating in out-of-hours duty, there is a need to focus on new models of emergency primary health care

Discussion

The new model of OOH services

- in larger inter-municipal co-operations
- with larger OOH primary health care units

Better quality?
Better accessibility?
Better stability?
Out of balance?