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Michael Skjelderup

Michael is a publication series named after professor *Michael Skjelderup* (1769-1852), one of the fathers of Norwegian medicine. He was born in Hof, Vestfold in Norway as the son of a priest, and was raised in the Norwegian countryside. Because of severe speech disturbances as a boy he did not get proper schooling, but was at last accepted as an apprentice in an apothecary's dispensary in the city of Fredrikstad at the age of 16. During his youth he tried through hard work and by means of an intensive self-discipline to overcome his handicap, and he really succeeded, except for in stressed situations.

Lacking a student examination, an academic training seemed out of question, in spite of his obvious bright mind. However, in 1789 he was admitted to the new Surgical Academy in Copenhagen, where academic qualifications were not required.

From now on, his career flourished. He passed the surgical examination with the highest grade in 1794, entered positions in Copenhagen hospitals and at the University, where he defended his doctoral thesis in 1803 and was appointed professor in 1805.

The first University in Norway was founded in Christiania (now: Oslo) in 1811. Medical teaching was supposed to commence from the very beginning, and from 1814 the new medical faculty could offer medical training. Michael Skjelderup was appointed its first professor 1813, and started his teaching, mainly in anatomy in the fall of 1814, after a dramatic war time sea voyage from Denmark across the waters of Skagerrak where hostile Swedes fired at his swift sailing vessel.

As a University pioneer, he became active in several medical fields. Among other achievements, he published an authoritative textbook in forensic medicine in 1838. When he resigned in 1849, eighty years old, he had seen all Norwegian trained medical doctors in his lecture room.

Skjelderup was instrumental in building a scientific medical community in Christiania. Together with his University colleague Frederik Holst (1791-1871) he founded the first Norwegian medical journal *Eyr*, named after a norse medical goddess, in 1826. A reading club of physicians established in 1826 was formalized into an association in 1833, the still existing Det norske medicinske Selskab (The Norwegian Medical Society), which over the decades to come played an important role in the development of the health services and of a national medicine.

Michael is devoted to the memory of the man who first realized the importance of a regular, national medical publication activity in Norway and implemented his ideas in 1826. *Michael* is published by the same association as was founded by Michael Skjelderup and his colleagues – Det norske medicinske Selskab.

The editors

Magne Nylenna

Sickness and society

Michael 2005; 2 : 199.

The microscope can be seen as a symbol of modern medicine. Breaking down the human body in organs, tissue and cells has revolutionized our understanding of the aetiology and pathogenesis of diseases. Recently, new achievements and insights in genetics have shed light on the most basic levels of the human organism. Through clinical trials new therapeutic means have been developed, many of them related to pharmaceutical products.

The underlying strategy has been to identify structures and processes and study them in isolation. This has led to a massive progress in our ability to diagnose and treat diseases. But it has also left us with limited understanding of context and relations. Clinical medicine has become highly specialized. It has more or less exclusively become the domain of the general practitioners (and of alternative healers) to retain a holistic view.

But our lives are still complex. And we are not even living our lives in isolation. "No man is an island unto himself", John Donne (1572-1631) wrote 400 years ago.

This issue of *Michael* is devoted to papers on the relation between health and history, between sickness and society. A bird's-eye view is literally presented by Larsen in his paper on physical and social changes assessed by aerial photography (page 269). How we live together and how we interact in a society are at least as important today as it were two hundred years ago when the annual medical reports from the Norwegian district physicians were introduced (page 218).

The macroscope does not exist as a physical object. But as an approach to medicine it can be seen as a supplement to the microscope and to the ideology of isolation and specialization. The virtual macroscope instrument is a tool for getting a comprehensive overview of a conglomerate of interacting phenomena. The study of broad connections has a far too low status in scientific medicine of today. We should pay more attention to perspective and combine the use of the microscope with the macroscope for the amelioration of future health care.

Guntis Kilkuts, Elin Olaug Rosvold, Jørund Straand, Morten Lindbæk, Øivind Larsen

Seeing a general practitioner in Latvia and Norway – a comparative study

Michael 2005; 2, 200–10.

Summary

Context: Since independence in 1991, the health care system in Latvia has changed from a specialist oriented system to a general practitioner based first line medical service. Information about the contents of the services in the new Latvian general practice is scarce.

Objective: To describe reasons for encountering Latvian general practice, registered as diagnoses, compared to Norwegian general practice, with a particular focus on infectious diseases.

Design and setting: Adult (18 years or older) patients' reasons for encounter were recorded in ten general practices in Latvia (October 2001), and in 60 general practices in Norway (winter and autumn 2001).

Subjects: 948 Latvian and 1037 Norwegian patients.

Results: The male/female ratio was equal in the two patient populations. The Latvian patients were significantly younger than the Norwegians (mean age 41.4 years versus 51.0 years, $p<0.001$). The distribution of ICPC diagnoses in the two patient populations was significantly different ($p<0.001$) with a higher proportion of respiratory and digestive illnesses in the Latvian population, and a higher proportion of skin-problems and routine controls of pregnant women in the Norwegian population. Twenty-seven percent of the Latvian patients were diagnosed as having an infection, most commonly respiratory tract infections. Of those who had an infection, 48% were prescribed antibiotics, mainly penicillins. 14% of Latvian GP's were highly or very highly influenced by their sense that patients would attend another physician if they did not prescribe antibiotics

Conclusion: In this study we found significant differences in distribution of diagnoses in general practice in Latvia and Norway. Among patients with a diagnosis of infection in Latvia, 48 % received antibiotics, which is considered as

a high proportion. One fourth of Latvian GP's felt influenced by their patients' expectations for prescriptions of antibiotics.

Key words: general practice, infections, antibiotics, prescription, Latvia, Norway

Introduction

Since independence in 1991, the health care system in Latvia has changed from a specialist oriented health care system to a general practice (GP) based first line medical service. However, preconditions for offering and taking advantage of general practice have been under constant change and have not been settled yet (2005). While all health care services used to be free of charge in the Soviet times, there is now a fee to pay, but the reimbursement principles from sickness funds are varying and have been subjected to recurring changes. Profound shifts in the economy have generated new socioeconomic class differences that affect the possibilities to pay for health care. This is of particular importance for the retired and the elderly who generally have greater needs when it comes to health care.

In the year 2001, an average Latvian encountered any medical outpatient service 4,8 times (1). However, this figure also includes e.g. seeing a specialist, as the new system remains to be fully introduced. The income level among Latvian people has recently been shown to be an important determinant for the availability of health services, and also for the level of trusting the health care system (2). This implies that other factors than medical needs affect the doctor seeking habits. Statistics specifying kind of and reasons for doctor encounters are not available for 2001.

Demography and health

At the beginning of 2001, the Latvian population of about 2.4 millions were distributed in urban (68%) and rural (32%) areas and consisted of only 46% (1,2). The gender distribution is skewed with a surplus of females in all age groups from 30 years of age. This sex difference is especially pronounced for the over 60 group. Thus, a typical patient seeing a Latvian GP could be expected to be an elderly woman living in a town. Furthermore, the number of deaths in 2001 outnumbered births, so the population growth was negative by 5.7 per thousand inhabitants. Among male deaths, 23% were caused by neoplasms as compared to 19% among females. There were 57% circulatory system deaths among males (females 75%); 20% accident deaths among males and 7% among females, for the time being a pattern which Latvia share with the two other Baltic states, Estonia and Lithuania.

The health care system in Latvia used to be specialist and hospital based. The picture shows Hospital Number 1 in Riga. (Photo: Ø. Larsen 2004)

Future primary health care in Latvia will be based on general practitioners and a list patient system like in Norway. Here: A general practitioner in Riga (dr. Kilkuts) making a house call to a twelve year old patient with a sore throat. (Photo: Ø. Larsen 2004, taken with the consent of the patient and her family.)

In all societies experiencing profound social and economic transitions, infectious diseases commonly prove to be a special threat. An appropriate use of antibiotics is one important factor in the efforts to counteract this risk. From independence up to May 1, 2002, antibiotics could be bought over the counter in pharmacies without a physician's prescription.

In order to shed some light into the new Latvian general practice system, a comparative study was set up in a selection of practices in Latvia and in Norway. The purpose of the study was to describe reasons for seeing a general practitioner (GP) in Latvia as compared to Norwegian general practice, although accepting that the very different social contexts would make precise conclusions hard to draw. The study also included a closer investigation into the use of antibiotics in Latvia as related to Norway (3).

Material and methods

Latvia

In ten Latvian general practices (five in urban and five in rural areas) the GPs recorded all office encounters with adult patients (more than 18 years of age) during a two weeks' period in October 2001. Medical personnel consecutively filled in pre-tested forms at the patient encounter. The following data were recorded: patients' year of birth, gender, reason for seeing the doctor (registered as the diagnosis), and description of further actions taking place, including prescriptions for antibacterial drugs. The physicians were requested to indicate if they thought that the patient had an infection, and to what extent factors such as patient's demands and time constraints had influenced their decision to prescribe antibacterial drugs. Every fifth patient was invited to participate in a study regarding his or her risk perception in relation to various infection threats, results of which are published separately (4).

The authors coded the GP's diagnoses according to main organ system ICPC codes.

Norway

Two classes of fifth year medical students in Norway (n=134), doing their mandatory service in general practice, recorded patients' reasons for seeing a GP among patients seen in their two first days of service (January/March and September/October 2001). The students were located in 60 different general practices. Each student was to observe a GP on a normal office day and to record the first ten patient encounters. The following data were recorded: patients' age, gender, reason for seeing the physician (the diag-

nosis), and description of further actions taking place. Only patients over the age of 18 years were included in the present study. Due to a new legislation on drivers licence that were to become operative in 2002, there were a number of encounters (n=60) for specific health certificates during autumn 2001. These encounters, representing an extraordinary situation, were excluded from the study material. Two patients, whose diagnoses were missing, were also excluded from the material.

Analysis

Data from both surveys were coded and analysed at the Institute of General Practice and Community Medicine at the University of Oslo. Reasons for encounter (the diagnoses) were classified and coded according to the International Classification of Primary Care (ICPC) (5). Diagnoses that could not be classified into any organ diagnosis were coded in the ICPC category A (general and unspecified): e.g. 39 Latvian patients with diagnosis "viral infection" and 15 Latvian patients with diagnosis "trauma". When more than one diagnosis was recorded, the first mentioned was coded and included in the study. Differences between proportions were analysed by Chi square tests and t-tests in the SPSS programme, version 10; level of significance was set to p-values ″ 0.05.

Results

Altogether 1985 patient encounters were recoded during the survey, 948 in Latvia and 1037 in Norway. The proportion of males was almost the same in the Latvian and Norwegian patient populations; 40.8% and 39.6% respectively.

The Latvian patients were significantly younger than the Norwegian were (mean age 41.4 years versus 51.0 years, $p<0.001$). In line with this, the age distributions within the ICPC groups were also significantly different in the two patient populations: the Latvian population had a higher proportion of patients in the younger age groups than the Norwegian population. While only 15% of the Norwegian patients with heart- and circulatory diseases were younger than 50 years of age, 35% of the Latvian patients were in this age group ($p<0.001$). Only in the category female genital problems there were more Norwegians than Latvians in the youngest age group ($p<0.001$).

In Latvia, diseases of the respiratory system (20%) made up the largest group, followed by musculoskeletal problems (16%), and heart and circulatory diseases (15%). The distribution of ICPC diagnoses in the two pa-

Table 1. Distribution of ICPC diagnoses in Latvian and Norwegian general practice: consultations with 948 Latvian and 1037 Norwegian patients.

Organ system according to ICPC	Latvia n	(%)	Norway n	(%)
A-General and unspecified	114	(12)	42	(4)
B- Blood and immune system	10	(1)	4	(0.4)
D- Digestive system	71	(8)	42	(4)
F- Eye	8	(1)	16	(2)
H- Ear	8	(1)	10	(1)
K- Heart and circulatory system	142	(15)	176	(17)
L- Musculo-skeletal system	155	(16)	189	(18)
N- Neurological	38	(4)	39	(4)
P- Mental	56	(6)	73	(7)
R- Respiratory	189	(20)	145	(14)
S- Skin	32	(3)	72	(7)
T- Endocrine/Metabolic	44	(5)	62	(6)
U- Urological	30	(3)	21	(2)
W- Pregnancy	14	(2)	70	(7)
X- Female genital system	35	(4)	45	(4)
Y- Male genital system	2	(0.2)	14	(1)
Z- Social problems*	0	(0)	17	(2)
Total	948	(101)	1037	(100)

** "Social problems" includes administrative encounters such as health certificates (other than those for drivers' licences).*

tient populations was significantly different ($p<0.001$) (Table 1). Social problems were only recorded as reason for contact in the Norwegian population. The proportions of major disease groups such as heart and circulatory diseases, musculoskeletal diseases, and mental diseases were fairly equally distributed within the two patient populations. However, there were higher proportions of respiratory and digestive diseases in the Latvian population, and a higher proportion of skin problems and pregnancies in the Norwegian population. The gender distribution within the different ICPC groups was equal, with two exceptions: the Latvian population had a higher proportion of males with digestive diseases (59% versus 36% in Norway, $p<0.05$), and more males among the Norwegian patients had metabolic/endocrine diseases (39% versus 16% in Latvia, $p <0.05$).

In the Latvian study, some more information about the consultations was recorded: New symptoms were the reason for consultation by 58% of the patients, whilst 33% had a follow up consultation. Nine percent visited the physicians for other reasons, such as medical certificates etc. More men (63%) than women (55%) presented new symptoms ($p<0.01$).

Table 2. Antibiotics given to 253 patients with infectious diseases in Latvian general practice divided on diagnoses. Numbers of patients.

ICPC Main classes	Diagnosis as recorded by Latvian GPs	N	Number given anti-biotics	Number given different antibiotics				
				Peni-cillins	Floaxin, Cephalo-sporin	Macro-lides	Sulfoni-damides, Fucuic acid de-rivates Furagin	Tetracy-clines
A General and unspecified	Lympha-denitis	1	1	1				
	Borreliosis	1	1					1
	Viral infection	39	0					
	Trauma	1	1		1			
D Digestive	H.pylori infection / gastric ulcer	4	4	2		2		
	Other	6	1		1			
F Eye	Conjunctivitis	1	0					
H Ear	Otitis	4	2	2				
L Musculskele-tal system	Arthritis	2	0					
R Respiratory	Acute/chronic bronchitis	4	4	2	1	1		
	Chest infection/ Pneumonia	78	42	31	2	9		
	Pharyngitis/ Tonsillitis	52	20	12	3	1	4	
	Sinusitis	20	16	12	2	1		1
S Skin	Furunculosis/ Infected wound	6	5	2	1	2		
	Fungal infection	2	0					
	Herpes Zoster Pyodermia/	1	0					
	Streptodermia	3	3			1	1	1
	Scabies	1	0					
U Urological	Cystitis/ Urinary tract infections	25	20	2	11		6	1
X Female genital system	Adnexitis	2	2	2				
Total		253	122	68	22	17	11	4

Table 3. Latvian physicians' view of factors influencing their decision to prescribe antibiotics to patients diagnosed with infections (n=122). Percentages.

	1 Very Little	2 Little	3 Moderate	4 Highly	5 Very Highly
How certain were you that antibiotics were medically indicated?	1	4	10	39	46
Did patient demand influence your decision to prescribe?	74	18	6	2	1
Did time constrains influence your decision to prescribe?	87	12	2	0	0
Did your sense that your patient would attend another physician if you did not prescribe antibiotics?	62	13	12	3	11

In all, 27% (253) of the Latvian patients were diagnosed by the physician as having an infection; 46% of these were males. An additional 27 patients perceived that they had a diagnosis indicating an infection, but that was not confirmed by the physician.

Sixty-one percent of the 253 cases registered as infections were respiratory tract infections: 70 cases were diagnosed as chest infection, 42 cases as pharyngitis, 20 cases as sinusitis, ten cases as tonsillitis, eight cases as pneumonia, and four cases as bronchitis. An additional 15% (39 cases) were diagnosed as having a viral infection, which might have been in the respiratory tract. The second most important group was urinary tract infections (19 cases). Almost half (48%) of the patients diagnosed with an infection were prescribed antibiotics. Penicillins were the most common antibiotics given, followed by macrolides and floxacins. Thirteen percent of the patients who had infections were referred to a specialist.

In the 122 cases where antibiotics were prescribed, the Latvian physicians were requested to indicate to what extent they were certain that antibiotics were medically indicated, and if time pressure or patients demands had influenced their decision to prescribe (Table 3). In most cases the

physicians felt certain that antibiotics were indicated and that patients' demands and time constraints not influenced their prescription practice. However, in 14% of the cases the physicians reported that the decision to prescribe antibiotics was highly or very highly influenced by a fear that the patient would seek a second opinion if they did not prescribe.

Discussion

Conditions for health in Latvia have changed substantially in the years after independence. It is of general interest to study the impact of the development on daily life, e.g. on the use of primary medical care as compared to in a country like Norway which has a settled welfare state health service (4,6).

However, there are some important methodological considerations which unavoidably will call for due caution in the interpretation of the results of such a study: Conditions in Latvia are shifting so rapidly that any study from the transition period will be a cross-sectional snapshot from an ever changing context. The material in the two studies was collected at different times and not originally meant to be compared. Differences in questionnaire design and instructions given to those who collected the data may have influenced the results. Random misclassifications of diagnoses may have occurred in the Norwegian material where as many as 134 students were collecting the data. In Latvia, only ten different physicians set the diagnoses. However, systematic errors may nevertheless have occurred due to the physicians' different diagnostic and therapeutic habits.

In some cases, the diagnoses could not be placed in any ICPC organ category, i.e. 39 Latvian patients with "viral infections" and 15 Latvian patients with "trauma". These were put in category A. Many of the viral infections were probably respiratory tract infections and many of the traumas were probably skin wounds or musculoskeletal traumas. This indicates that the proportion of these three diagnoses may have been underestimated in the Latvian material. However, test calculations showed that this possible bias did not affect our main findings in the comparison with the Norwegian group.

Only one diagnosis was recorded for each patient. The physician's or student's decision as to which diagnosis should be recorded might have been biased if focus was placed on major or rare diseases. Diagnostic bias might also have occurred in the Latvian material where the questionnaire focused on infectious diseases and use of antibiotics, i.e. there might be an over-reporting of infectious diseases.

We found some significant differences in diagnoses between Norwegian and Latvian GP-patients. The Norwegian situation in general has recently been described in detail for the diagnostic distribution in general practice (7) and for prescription of antibiotics (8). Differences between Norway and Latvia in our material may, however, to some extent also reflect seasonal variations. There may be more respiratory infections in October in Latvia than in September in Norway. The encounters for pregnancies in Norway were probably mainly maternity check-ups. In Latvia, GPs perform maternity checkups, but a certain share of the pregnant women prefers to see a gynaecologist instead. Furthermore, Latvian physicians usually do not record diagnoses in terms of social problems. This may be due to cultural differences in diagnosing.

We also noted some significant differences in age distribution within the disease groups in Norway and Latvia. This is probably mostly due to significantly younger patients in the Latvian study. In the age group 20-49, 26 out of 652 Latvians (4.0%) and 9 out of 507 (1.8%) Norwegians had hypertension ($P<0.05$)

Conclusions

The main finding of this survey is that in general the reasons for encounter (diagnoses) in general practice in the two countries are much the same. There are, however, some important differences as to a higher proportion of respiratory and digestive illnesses in the Latvian population, and a higher proportion of skin-problems and routine controls of pregnant women in the Norwegian population.

The prescription of antibiotics for common infections is high in Latvia. A significant proportion of Latvian doctors were influenced by their feeling that patients would seek another doctor if they did not get antibiotics when seeing the doctor for an infection. This indicates that competition for patients may have influenced prescription patterns in Latvia. Our findings suggest that there is a higher proportion of patients with infections receiving antibiotics in Latvia as compared to in Norway. This more widespread use may reflect that in this period of transition antibiotics until recently have been sold over the counter in Latvia. In the perspective of antibiotic overuse and development of antibiotic resistance, it is important to educate physicians and the public about appropriate use of antibiotics.

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**Guntis Kilkuts, Elin O. Rosvold,
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Risk perception of communicable diseases among adult Latvian general practice patients

Michael 2005; 2: 211–35.

Summary

Context: The willingness in a population to accept measures against hazards and diseases depends on the perception of health risks involved. Studies on health risk perception in the general population are lacking in Latvia.

Objective: To study risk perception of communicable diseases in a sample of adults in Latvia.

Design and setting: Data were collected in ten general practices in Latvia October 2001. Every fifth patient visiting the general practitioners (GPs) during two weeks was requested to participate in a structured interview performed by a nurse.

Subjects: 199 patients aged 18-78 years; 65% were females.

Results: More than half of the respondents perceived that they were at high risk of contracting communicable diseases, especially food borne infections. Twenty eight percent of the patients thought that they had a high or very high risk of attracting lung tuberculosis, and an additional 20% perceived this risk as being moderate. Only 19% had a high or very high confidence in preventive measures against communicable diseases, but 58% had high or very high confidence in treatment. More than half regarded their knowledge about communicable diseases as rather low.

Conclusion: There seems to be a substantial perception of risk of communicable diseases among adults in Latvia. This is combined with a low confidence in preventive measures, but a high trust in treatment. Latvia probably has important preventive potentials in strengthening general health education about public health matters, and in particular in relation to the prevention of communicable diseases.

Key words: communicable diseases, infections, tuberculosis, general practice, health education, Latvia

Introduction

When Latvia achieved political independence in 1991, a process started which caused profound changes in the entire setup of the society. Not only economy and social conditions were subjected to alterations, but also living circumstances in general, health, and the availability of health services.

It is well established within public health science that social instability favours spread of communicable diseases. Failures in controlling such diseases as well as care for patients may endanger the whole population. These assumptions also seem relevant for Latvia (1,2). For example, the numbers of acute intestinal infections clusters (each with five and more affected cases) increased by a factor of about four in the years 1997-2000, suggesting faultiness in food handling and hygiene. Tuberculosis has again become a public health threat. The prevalence of tuberculosis is still increasing, from 70.5 to 72.9 per 100 000 inhabitants from 2000 to 2001, and the rising occurrence of multiresistant strains causes particular concern.

A part of the problem may be related to insufficient knowledge about communicable diseases in the general population. Another factor may be a general underestimation of health hazards when costs for health have to be balanced against other values that are felt as equally imminent demands, such as housing, clothing, buying a car etc.

This study attempted to explore communicable disease risk assessment among adults in Latvia by interviewing patients seeing a general practitioner.

Material and methods

In ten Latvian general practices (five urban and five in rural areas) adult patient encounters were recorded successively and simultaneously during a two weeks' period in October 2001. Every fifth patient consulting the general practitioner (GP) was invited to a structured interview on their individual perception of infection risks. Trained nurses performed the fifteen minute interviews. In all, 199 patients aged 18-78 were interviewed, 65% of which were females.

Questions were posed and answered in Latvian by means of a pre-tested form. The questionnaire addressed the perception of infection risks, confidence in preventive measures taken in society, assessment of own knowledge regarding communicable diseases, own capacity to protect oneself from communicable diseases, and confidence in treatment offered in case of contracting some communicable infection. In addition, more specific questions were posed concerning tuberculosis, sexually transmitted diseases, and food borne infections.

Differences between proportions were analysed by Chi-square tests in the SPSS programme, version 10 (3); level of significance was set to p-values ″ 0.05. In the cross tabulations, the answering categories were combined into 1: Very high/ high, 2: Moderate, 3: Low/very low. The "Do not know" category was not included in the cross tabulations. The independent variables used were sex, age tertiles (18-32 years, 33-48 years , 49-78 years), and being diagnosed as having an infection (yes/no).

Results

34 out of 1 000 recorded patients had to be excluded due to incomplete forms, giving a total number of 966 patients of which 199 completed the interviews.

More than half of the respondents perceived their own risk of getting a communicable disease to represent a substantial health threat (Table I). Eighty percent had only a moderate or a low confidence in preventive measures taken in society against communicable diseases.

More than half of the respondents stated that they had a low or very low degree of knowledge regarding communicable diseases. Only one third of the respondents perceived their own capacity to protect themselves from contracting communicable diseases as being high or very high, more males than females (46% versus 25%, $p < 0.05$). This was the only significant gender difference found in the data set. More than half of the respondents were confident that contagious infections might be treated efficiently by modern medicine.

Twenty eight percent of the patients thought that they had a high or very high risk of attracting lung tuberculosis, and an additional 20% perceived this risk as being moderate (Table II). On the other hand, 39% perceived their risk as being low or very low. Those in the middle age group (33-48 years) were more likely to report a very low or low risk (59% compared to 34% in the youngest and 39% in the oldest group, $p < 0.01$). Nine out of ten respondents were in favour of rather comprehensive control programmes to prevent the spread of lung tuberculosis (hygienic measures, vaccinations, X-ray controls, isolation of patients under treatment, etc.). When asked to what extent they thought that resistant tuberculosis bacteria might represent a problem for controlling lung tuberculosis, only half of the respondents claimed that they had any knowledge about this issue.

As regards sexually transmitted diseases, three out of four respondents assessed their own risk of contracting such diseases to be low or very low. Almost half of the respondents thought that the general level of knowledge about preventing sexually transmitted diseases in society was moderate,

while about one out of four felt that the level was high or very high. When asked to which extent sexually transmitted diseases might cause infertility, more than half of the respondents meant that the risk was high or very high, whilst one out of five claimed that they did not know. However, the confidence in treatment possibilities was generally high.

The self perceived risk of contracting food borne infections was rather high; half of the patients assessed their risk as being high or very high, while one third thought that they were at a moderate risk. The public health measures and regulations against food borne infections were judged as moderately satisfactory or less so (low/very low) by 84% of the respondents.

When having diarrhoea and/or vomiting, nearly half of the respondents said that they would relate this to intake of food and drinks. The oldest age group was less likely than the younger ones to relate gastrointestinal symptoms to food and drinks (33% responded high/very high compared to 60% in the youngest and 45% in the middle age group, $p < 0.01$). However, in all age groups the likelihood for seeking some professional advice in case of acute gastroenteritis was generally low.

Table I. Perceptions of communicable diseases among 199 adult patients in general practice in Latvia. Percentages.

	Very high/ High	Moderate	Very low/ Low	Do not know
The chance of getting a communicable disease is an actual threat to own life and health	58	23	16	3
Confidence in the preventive measures taken in society against a communicable disease, e.g. public hygiene, vaccinations, food control	19	49	31	2
Own knowledge regarding communicable diseases	6	42	52	1
Capacity to protect oneself from contracting communicable diseases	32	46	19	4
Confidence that communicable diseases may be treated efficiently by modern medicine	58	21	7	14

Table II: Perception of own risk of lung tuberculosis, sexually transmitted diseases, or food borne infections among 199 adult patients in Latvian general practice. Percentages.

	Very high/ High	Moderate	Very low/ Low	Do not know
Lung tuberculosis				
Self perceived risk of contracting lung tuberculosis	28	20	39	13
Acceptance of comprehensive control programs	92	5	1	4
Perception that resistant bacteria is a problem in control of lung tuberculosis	36	14	3	47
Sexually transmitted diseases (STD)				
Self perceived risk of contracting STD	11	14	73	3
Perception of own knowledge about STD prevention in general public	28	48	21	4
Perception that STD cause infertility	55	24	2	20
Perception that STD can be treated successfully	55	21	9	15
Food borne infections				
Self perceived risk of contracting food borne infections	48	35	15	2
Careful to avoid food borne infections in daily life	51	29	18	2
Perception of public health measures and regulation in society to protect against food borne diseases as satisfactory	12	48	36	4
Relate own diarrhoea and/or vomiting to intake of food or drinks	45	36	17	3
Seek professional advice for diarrhoea and/or vomiting	14	29	57	1

Discussion

There are few traditions for research projects in primary health care in Latvia, and we have found no previous study on peoples' perceptions of health issues.

As the participants were selected in a patient population, the respondents may differ somewhat from the general adult Latvian population. Only 35% were males, while males constituted 46 % of the Latvian population in 2001 (2). The interviews were performed in a health care setting. This may have introduced a bias, i.e. that the participants expressed more concern about health care matters than the general population would have done. This possible overestimation of risk perception in our population, as compared to that in the general Latvian population, should be taken into account when interpreting the results.

The over all knowledge of communicable and infectious diseases was low. The fact that half of the respondents were not aware of the dangers connected to the drug resistant tuberculosis strains may complicate the acceptance of precautions that may be needed to avoid further growth of the tuberculosis problem.

Traditionally, the group of sexually transmitted diseases in Latvia mainly contained syphilis, gonorrhoea, chlamydia, and other urinary- and vaginal infections (2). The introduction of HIV to Latvia is relatively new and came predominantly with injection substance abusers. We therefore suppose that in 2001, some respondents probably did not regard HIV primarily as a sexually transmitted disease.

At the time of this study, public health issues were by and large neglected among the general population. Therefore it seems that Latvia still has important preventive potentials e.g. in strengthening the risk perception by a more efficient general health education. The findings in this study suggest that the population probably will welcome comprehensive control programs, in particular regarding the fight against tuberculosis.

In general, the results from this study points to the importance of knowledge about health risk perception as such in public health work. Studies of the perception of risk in a society (4,5) may be indispensable in order to learn how different risks are ranked by the individuals, and how consequences of risk-taking are perceived by those involved.

In case of contagious diseases, the imbalance between the perception of risk held by the professionals and that of the lay population causes concern: On the medical side the risk of spread has prime interest because treatment may fail. On the lay side trust in treatment seemed to subdue the risk of affecting the disease.

Conclusions

Our main finding is that nearly six out of ten among our Latvian respondents perceived they had a relatively high chance of contracting some communicable diseases. In general they had a rather moderate confidence in preventive measures, but their confidence in treatment was high. Important also was that many people regarded their own knowledge about communicable diseases to be low. People reported a moderate trust in self-administered preventive measures against these infections, but on the other hand, many claimed that they were very careful to avoid food borne illnesses in daily life. An insight into the health risk perception held by the target population seems to be a necessity when tailoring public health measures.

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Hans Petter Schjønsby

The medical reports from the district physicians – an indispensable source to the Norwegian medical past

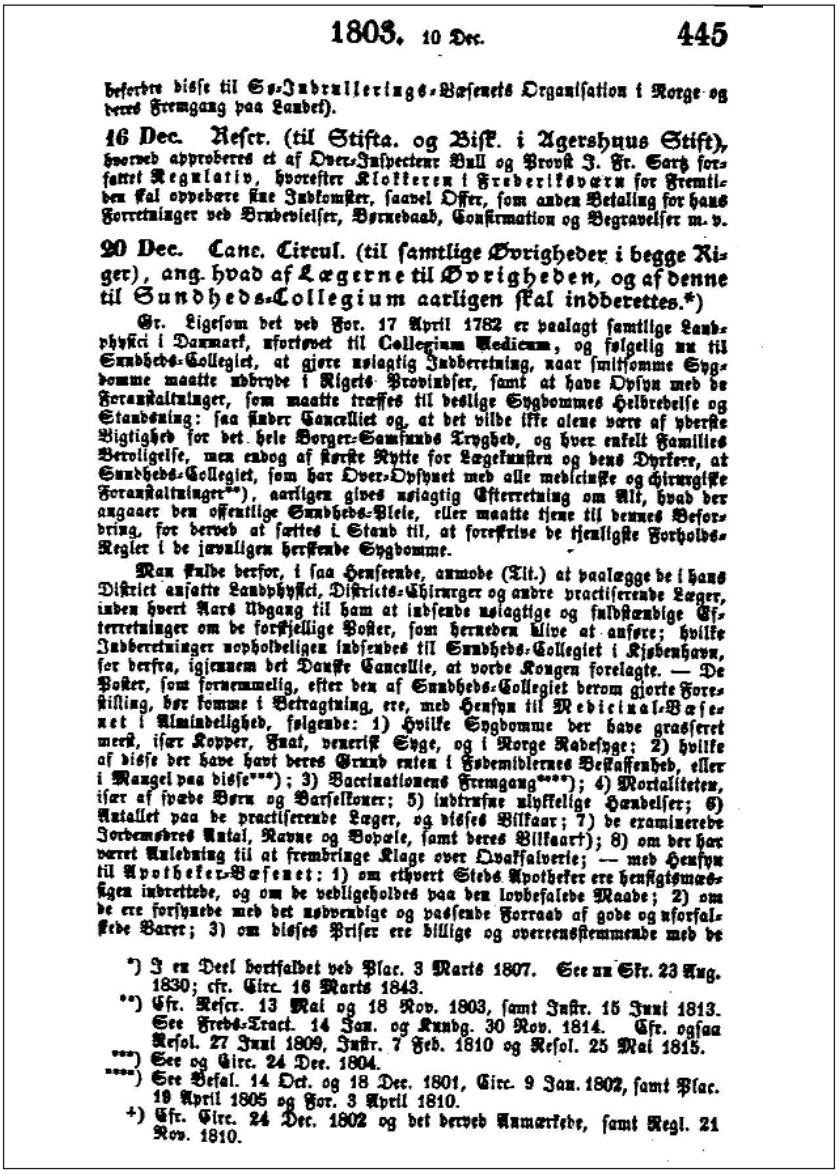
Michael 2005; 2: 218–35.

Summary

The annual reports submitted by Norwegian district physicians to the health authorities 1804-1984 were summarized and edited and constituted throughout this period an important tool for contemporary health administration on different levels. The reporting system was an offspring of the 18th century mercantilist philosophy which implied that public health was a responsibility of the society. For long, the contagious diseases were main points of concern in the reports, reflecting the dominance and importance of this group of health problems. The structure of the primary reports from the physicians and of the edited and printed versions shows a development over time. From the 1860'ies onwards the reports were standardized in a way which made comparisons in time and space more easy. On the other hand, this led to a certain rigidity which contributed to a decrease in practical importance for the reports in the 20th century, especially after World War I. From the 1960'ies it became obvious that the old reporting system did not fit in with the new morbidity pattern of the population. Nevertheless, the reports make up an indispensable source for historical studies on local, regional and national levels of health and living conditions in Norway in the 19th and 20th centuries.

1803 – The year of birth

According to a circular by December 20th, 1803 from the Medical College in Copenhagen, all County Governors of the realm were told to instruct all "in his district employed country physicians, district surgeons and other practising doctors" to submit annually "Intelligence on the various items, that are to be listed below; such reports shall forthwith and without delay be sent to the Medical College in Copenhagen, and from there, through the Danish Chancellery, to be presented to the King (1) (fig1).



1803. 10 Dec. 445

befordre disse til Sø-Indrulleringe-Væsenets Organisation i Norge og deres Fremgang paa Landet).

16 Dec. Reser. (til Stifta. og Bisk. i Agershuus Stift), hvorved approberes et af Over-Inspecteur Bull og Provst J. Fr. Sætz forfattet Regulativ, hvorefter Klokkeren i Frederiksværn for Fremtiden skal oppebære sine Indkomster, saavel Offer, som anden Betaling for hans Forretninger ved Brudevielser, Børnedaab, Confirmation og Begravelser m. v.

20 Dec. Cane. Circul. (til samtlige Øvrigheder i begge Riger), ang. hvad af Lægerne til Øvrigheden, og af denne til Sundheds-Collegium aarligen skal indberettes.*)

Gr. Ligesom det ved For. 17 April 1782 er paalagt samtlige Landphysici i Danmark, ufortøvet til Collegium Medicum, og følgelig nu til Sundheds-Collegiet, at gjøre aarlig Indberetning, naar smitsomme Sygdomme maatte udbryde i Rigets Provindser, samt at have Opsyn med de Foranstaltninger, som maatte træffes til deslige Sygdommes Helbredelse og Standsning: saa finder Cancelliet og, at det vilde ikke alene være af yderste Vigtighed for det hele Borger-Samfunds Tryghed, og hver enkelt Families Beroligelse, men endog af største Nytte for Lægekunsten og dens Dyrkere, at Sundheds-Collegiet, som har Over-Opsynet med alle medicinske og chirurgiske Foranstaltninger**), aarligen gives nøiagtig Efterretning om Alt, hvad der angaaer den offentlige Sundheds-Pleie, eller maatte tjene til dennes Befordring, for derved at sættes i Stand til, at forelægge de tjenligste Forholds-Regler i de jevnligen herskende Sygdomme.

Man fulde derfor, i saa Henseende, anmode (Tit.) at paalægge de i hans District ansatte Landphysici, Districts-Chirurger og andre practiserende Læger, inden hvert Aars Udgang til ham at indsende nøiagtige og fuldstændige Efterretninger om de forskjellige Poster, som herneden blive at anføre; hvilke Indberetninger nøyholdeligen indsendes til Sundheds-Collegiet i Kjøbenhavn, for derfra, igjennem det Danske Cancellie, at vorde Kongen forelagte. — De Poster, som fornemmelig, efter den af Sundheds-Collegiet derom gjorte Foreskrivelse, bør komme i Betragtning, ere, med Hensyn til Medicinal-Væsenet i Almindelighed, følgende: 1) Hvilke Sygdomme der have graseret mest, især Kopper, Feber, venerisk Syge, og i Norge Radesyge; 2) hvilke af disse der have havt deres Grund enten i Fødemidlernes Beskaffenhed, eller i Mangel paa disse***); 3) Vaccinationens Fremgang****); 4) Mortaliteten, især af smaa Børn og Barselkoner; 5) indtrufne ulykkelige Hændelser; 6) Antallet paa de practiserende Læger, og disses Bilkaar; 7) de examinerede Jordemødres Antal, Navne og Bopæle, samt deres Bilkaar†); 8) om der har været Anledning til at fremdrage Klage over Qvaksalverie; — med Hensyn til Apotheker-Væsenet: 1) om ethvert Stedes Apotheker ere hensigtsmæssigen indrettede, og om de vedligeholdes paa den lovbefalede Maade; 2) om de ere forsynede med det nødvendige og passende Forraad af gode og uforfalskede Varer; 3) om disses Priser ere billige og overensstemmende med de

*) I en Deel bortfaldet ved Plac. 3 Marts 1807. See nu Skr. 23 Aug. 1830; cfr. Circ. 16 Marts 1843.

**) Cfr. Reser. 13 Mai og 18 Nov. 1803, samt Instr. 15 Juni 1813. See Frebs-Tract. 14 Jan. og Kundg. 30 Nov. 1814. Cfr. ogsaa Resol. 27 Juni 1809, Instr. 7 Feb. 1810 og Resol. 25 Mai 1815.

***) See og Circ. 24 Dec. 1804.

****) See Befal. 14 Oct. og 18 Dec. 1801, Circ. 9 Jan. 1802, samt Plac. 19 April 1805 og For. 3 April 1810.

†) Cfr. Circ. 24 Dec. 1802 og det derved Anmærkede, samt Regl. 21 Nov. 1810.

Fig 1. Governmental circular of December 20th, 1803 on the introduction of mandatory medical reports.

Thus the foundation was laid for annual, mandatory reports from the doctors to the central health authorities. These measures were strengthened as early as 1807, and several times thereafter. In Norway, it lasted till 1984, when the institution of district physicians ceased to exist.

Before 1803 it was primarily the task of the clergy both to report to the County Governor (as superior authority) on epidemics, but also to take measures against contagious diseases. At that time, such measures were information to the public, often from the pulpit or at the church green, and the distribution of medical drugs. This was addressed in some detail by a decree of April 17th, 1782 (2). Here the public was obliged to report to the local vicar of serious diseases or other conditions that were considered to be dangerous or contagious. At the same time, the estate owner, the County Governor or the farmer "promptly get the county physician or other capably examined doctor, to explore the disease and ordain the required drugs against it". If the doctor had discovered a contagious disease, he was instructed to "promptly make a meticulous report to the Medical College".

This ordinance applied to Denmark, but in practical terms to Norway as well as far the central role of the vicar was concerned. In the regulations of 1803, new directions were introduced that applied to both countries. The reporting requirement was significantly enhanced to "everything that pertains to the public health care". The reasons presented for this reporting requirement in the need of the authorities "to be capable of, prescribe the most adequate preventive measures towards the most regularly present diseases". Or, as we would have put it today: The decision makers' need for updated information from a superior professional and supervisory body on public health.

Central health authorities

The Medical College was established in 1740 as an advisory body to the authorities. In 1803 the political development indicated that this institution was replaced by a college within the central government, i.e. a body of public administration. Its functions were approximately those of a directorate, and it sorted under the Danish Chancellery, or Ministry of the Interior (3). In 1809 the state of war led to the establishment of a distinct Norwegian health college ("Sundhedscollegium"). In 1815, after the separation of Denmark and Norway, these functions were transferred to a medical agency that was placed in different ministries till 1891. Then, the medical reports were submitted to the newly established national board of Health. This body was placed outside the ministry and was headed by a medical director. To day the central health management consists mainly of the Ministry of Health with two agencies: a National Board of Health, a supervision authority; and a Directorate of Health and Social Affairs.

The underlying conditions for the reports

The reason why this process took place from approximately 1770, was to a large extent the recognition by the autocratic state that public health was a public responsibility, at the same time as the need of the government to exercise control was increasing. This, in its turn, was linked to the political philosophy of that time – mercantilism – in which a healthy population was a prerequisite for a strong national state. In order to be able to act politically it was necessary with more information, i.e. on the health conditions of the domain. This recognition was made more pertinent and strengthened by the increasing frequency of contagious diseases, in Norway by "radesyke" (traditionally viewed as a tertiary form of syphilis) as well. It is worth noting that such gathering of information built on a certain tradition. In that respect we can refer to the first health law of the country, "Ordinance on Medics and Pharmacists" of 1672, section 9: "Medics, everywhere in Royal domains and land shall annually, or when circumstances occur, communicate with the Dean of the Faculty in Copenhagen whatever might appear remarkable or peculiar within medicine or nature.."(4). To what extent this obligation was followed up is uncertain, but it is an indication of the emerging interest in public health and responsibility for the welfare of the people on the part of the Crown.

Henceforth, an information system within the public administration represented nothing new. For example, as of the 18th century both the clergy and the local magistrates had a duty to report, and somewhat later came the introduction of quintennial reports of the County Governors. The gathering of information, that was so typical for the Era of Enlightenment, i.e. the 18th century, found its expression i.a. in the so-called topographical scripts. The best example of that in Norway is the priest from Sunnmøre Hans Strøm's "Physic and economic description of the court district of Sundmør" from 1762 and 1766. In his publications he also included problems of public health. His writing was known among his contemporaries, and among other, the Chamber of Interest (the equivalent of the Ministry of Finance) in Copenhagen wanted to use his knowledge as a foundation for its work (5).

It was therefore a number of conditions that led to a strengthened health service in the country. One of the measures was the appointmens of several public physicians and establishment of hospitals in the counties, effectively for veneral diseases and "radesyke". The introduction of annual and mandatory medical reports was an equally important measure, as it meant a significant means of assuring the quality of the knowledge of the central authorities on the state of diseases within the population and on the

public health. The modernization of the health services that thus took place, created the foundation for the arrangements of our times, and it is not hard to say that the fundamental elements in the construction of those days are about the same as today.

The reports of 1804

The directive of December 20th, 1803 indicated that the first reports would pertain to the year 1804, that is, 200 years ago. The doctors were asked to inform on seven areas within health and health services:

" 1. Which diseases that have raged the most, particularly smallpox, itch, veneral diseases, and, in Norway, "radesyke".
2. Which of these that may have been caused either by the nature of means of nutrition or by the lack of such.
3. The progress of vaccinations .
4. Mortality, particularly among newborns and women in confinement.
5. The occurrence of unfortunate events
6. The number of practising doctors, and their conditions.
7. If there had been occasion to present complaints of quackery".

In addition, there were five questions concerning the "Pharmacist-institutions", which were under the supervisory responsibility of public doctors at that time.

The questions were relevant and reflected the public health problems of that time as they appeared to the central authorities. Smallpox and veneral diseases were particularly mentioned. This was not only because smallpox was a constantly reccurrent and feared disease with high mortality, but also because at this time there had been some initial vaccinations under public auspices. The authorities were well aware of Jenner's work from 1798 and saw by that the opportunity of efficient prevention. Quick action was taken. Thus, the first vaccination in Denmark took place in 1801, and in Norway in March 1802, in Stavanger (5). The doctors were asked to report on the status of the vaccination, and seven years later, vaccination against smallpox was made mandatory (6).

As mentioned, it was in particular the increase in veneral diseases and "radesyke" among the population that caused the health reforms of the autocracy as of the 1770s and 1780s. This category of diseases, and particularly the "radesyke" has been addressed several times in medical historic literature, in Norway most lately in 2003 (5,8,9). It can be documented that veneral diseases – the distinction between gonorrhea and syphilis was not established until 1838 – was frequent among the population, and could be regarded as a common disesase. Early medical reports indicate this, and it

has been confirmed from Sweden "that the veneral disease together with tuberculosis was the main health problem of the century" (10). The authorities in Denmark-Norway considered the conditions to be so grave that in 1807, through the District Governors and Bishops, distributed "Information concerning the veneral disease, its characteristics and consequences…for the information of the general public" (11).

The medical reports of 1804 have recently been published in a transcribed version by the National Board of Health (12). The original reports are kept in the National Archives in Oslo (13). They are not quite complete, as there are 27 reports from 13 out of 18 counties present. Regarding the authors, 11 doctors (county physicians) were graduates from a Faculty of Medicine at a university. 16 district surgeons submitted reports. Among these, four had no formal education while the remainder had studied at the Academy of Surgery in Copenhagen. In 1787 this education was made equivalent to a graduation from the Faculty of Medicine. Slightly more than 20 per cent of the authors were native Norwegians, the other were Danish and German (14). Their average age in 1804 was around 42 years. Among more established public servants, such as clergy and lawyers, the number of Norwegians was far higher. For example, only ten per cent of the parish vicars in 1800 were born in Denmark, the remainder were native Norwegians (15). One cause of this was that the medical profession within the domain was very small till the 1780s, and that the education could not take place in Norway before the establishment of the University of Christiania in 1811.

The structure of the medical reports

In the reports of 1804 there is a pattern that in many ways was preserved until 1984. They were drafted by the individual doctor, and reflected this doctor's view of the public health within his district. These reports were then collected and considered into a context by a superior body before the final report was submitted to the Ministry. Here, they constituted the fundamental work of reference for the public health efforts of the central authorities. Whether it was the health college, the medicinal agency, the medicinal office or, later, the offices of the county public health officers and the National Board of Health, these evaluations and considerations were made by competent doctors and experts and thus increased the value of the reports (fig 2).

In the report of 1804 we have seen that the disposition is divided into two main parts. One was information on contagious diseases and other contemporary conditions or diseases; the other was mainly statistic records on health personnel and circumstances of mortality.

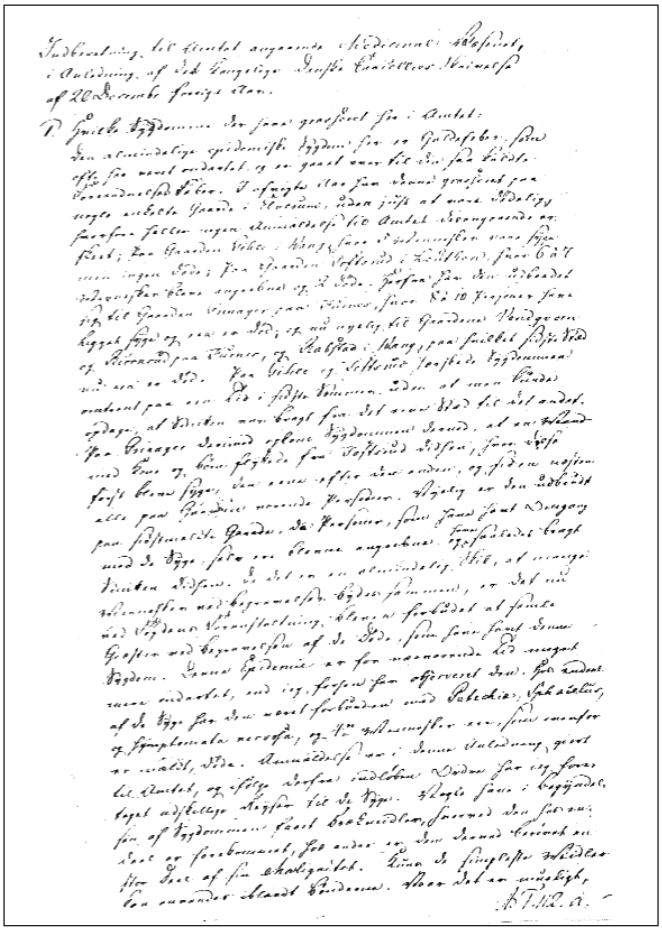


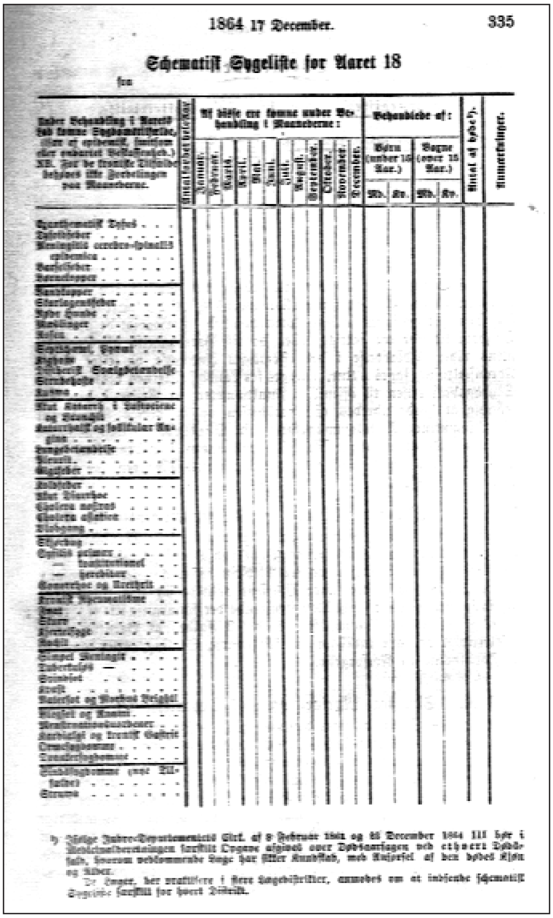
Fig 2. Cut from the original medical report of 1804 from county physician C. Lintrup in Hedemarken. National archives.

During the years between 1805 and 1813, the national archives only have sporadic reports, but as of 1814 they are complete, except from the years 1831-35. On August 24th , 1831 a "Letter from the Government Ministries of Church and Education" was sent to all authorized doctors in the country. This constituted an expansion and strengthening of "the ordered medical report", and replaced the guidelines of 1803. The doctors now had to express views on i.e. "which influence the weather might have had on the general health conditions". This was typically a question that pertained directly to the debate on causes of disease of that time.

It was more important that the doctors also were asked to describe people's "way of life…which might be assumed as the cause of some of the diseases listed". This represented something new, and hereby the authorities

assumed a modern, almost socio-economic view on diseases and their causes. One might readily assume that the increased documentation of the correlation between living conditions and diseases in the industrializing Europe had made its impact upon the medicinal office of the Ministry (16).

Gradually, the reporting requirements were expanded, both as far the statistical and the descriptive parts of the medicinal reports were concerned. After the passing of the new Public Health Act in 1861 the reports were standardized even further by the introduction of annual lists of cases and other statistics (17) (fig 3). This change implied a higher quality of the data, because they could be used to make comparisons between the regions, districts and parts of the country. The reports of practising doctors should now be sent to the district physician, who in his turn submitted his report to the County Governor. From there it was sent to the central health authorities in Christiania.


1864 17 December. 335

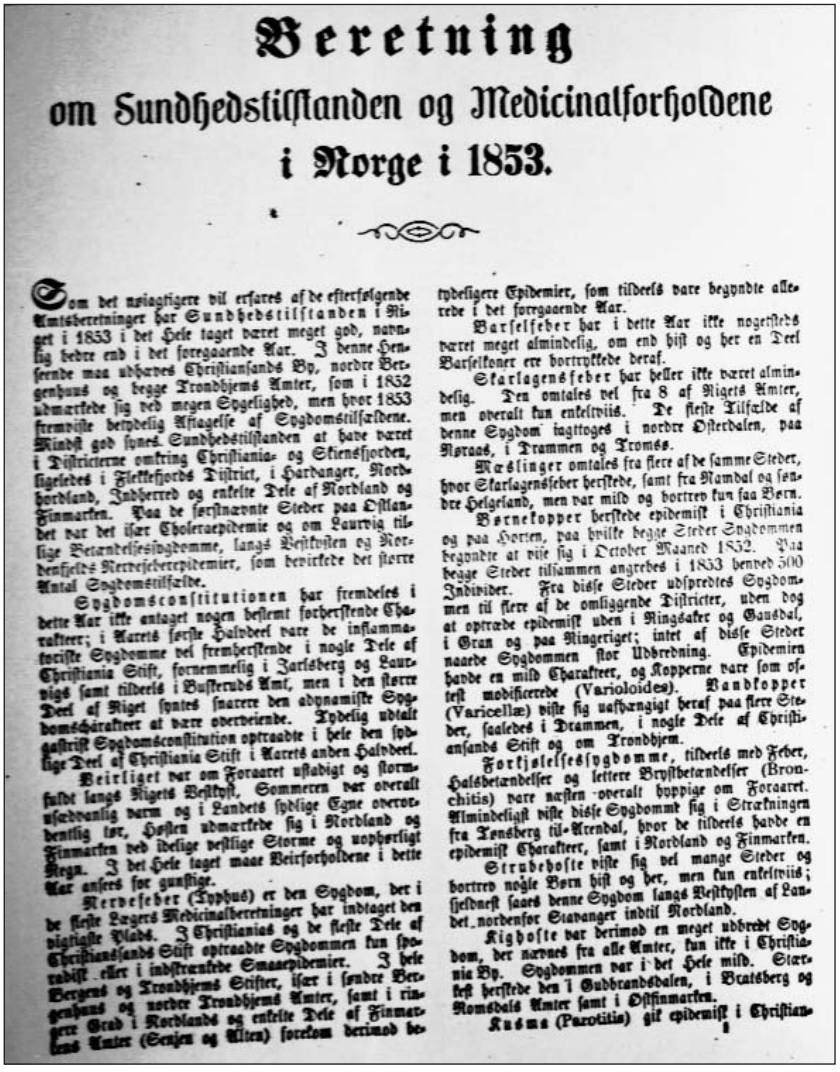
Schematisk Sygeliste for Aaret 18

fra

Fig 3. Annual list of diseases. Introduced in 1864.

"The State of Health and Medical Conditions in Norway"

As early as in 1815, the headline of the report from the health college to the Ministry got its permanent form: "Report on the State of Health and Medical Conditions in Norway". From 1853, they were printed as a part of Norway's official statistics (fig 4). The reports soon found a form which remained fairly unchanged until our time. First there was a brief and general account of the health conditions of the land. A quote from 1853: "As it will



Beretning

om Sundhedstilstanden og Medicinalforholdene

i Norge i 1853.

Som det usiagtigere vil erfares af de efterfølgende Amtsberetninger har Sundhedstilstanden i Riget i 1853 i det Hele taget været meget god, navnlig bedre end i det foregaaende Aar. I denne Henseende maa udhæves Christiansands By, nordre Bergenhus og begge Trondhjems Amter, som i 1852 udmærkede sig ved megen Sygelighed, men hvor 1853 fremviste betydelig Aftagelse af Sygdomstilfældene. Mindst god synes Sundhedstilstanden at have været i Districterne omkring Christiania- og Skiensfjorden, ligeledes i Flekkefjords District, i Hardanger, Nordhordland, Indherred og enkelte Dele af Nordland og Finmarken. Paa de førstnævnte Steder paa Østlandet var det især Choleraepidemie og om Laurvig tillige Betændelsessygdomme, langs Vestkysten og Nordenfjelds Nervefeberepidemier, som bevirkede det større Antal Sygdomstilfælde.

Sygdomsconstitutionen har fremdeles i dette Aar ikke antaget nogen bestemt forherskende Charakteer; i Aarets første Halvdeel vare de inflammatoriske Sygdomme vel fremherskende i nogle Dele af Christiania Stift, fornemmelig i Jarlsberg og Laurvigs samt tildels i Buskerud Amt, men i den større Deel af Riget syntes snarere den adynamiske Sygdomscharakteer at være overveiende. Tydelig udtalt gastrisk Sygdomsconstitution optraadte i hele den sydlige Deel af Christiania Stift i Aarets anden Halvdeel.

Veirliget var om Foraaret ustadigt og stormfuldt langs Rigets Vestkyst, Sommeren var overalt usædvanlig varm og i Landets sydlige Egne overordentlig tør, Høsten udmærkede sig i Nordland og Finmarken ved idelige vestlige Storme og uophørligt Regn. I det Hele taget maae Veirforholdene i dette Aar anses for gunstige.

Nervefeber (Typhus) er den Sygdom, der i de fleste Lagers Medicinalberetninger har indtaget den vigtigste Plads. I Christianias og de fleste Dele af Christiansands Stift optraadte Sygdommen kun sporadisk eller i indskrænkede Smaaepidemier. I hele Bergens og Trondhjems Stifter, især i søndre Bergenhus og nordre Trondhjems Amter, samt i ringere Grad i Nordlands og enkelte Dele af Finmarkens Amter (Senjen og Alten) forekom derimod betydeligere Epidemier, som tildeels vare begyndte allerede i det foregaaende Aar.

Barselfeber har i dette Aar ikke nogensteds været meget almindelig, om end hist og her en Deel Barselkoner ere bortrykkede deraf.

Skarlagensfeber har heller ikke været almindelig. Den omtales vel fra 8 af Rigets Amter, men overalt kun enkeltviis. De fleste Tilfælde af denne Sygdom tagtoges i nordre Osterdalen, paa Nøraas, i Drammen og Tromsø.

Mæslinger omtales fra flere af de samme Steder, hvor Skarlagensfeber herskede, samt fra Namdal og søndre Helgeland, men var mild og bortrev kun faa Børn.

Børnekopper herskede epidemisk i Christiania og paa Horten, paa hvilke begge Steder Sygdommen begyndte at vise sig i October Maaned 1852. Paa begge Steder tilsammen angredes i 1853 henved 500 Individer. Fra disse Steder udspredtes Sygdommen til flere af de omliggende Districter, uden dog at optræde epidemisk uden i Ringsaker og Gausdal, i Gran og paa Ringeriget; intet af disse Steder naarde Sygdommen stor Udbredning. Epidemien havde en mild Charakteer, og Kopperne vare som oftest modificerede (Varioloides). Vandkopper (Varicellæ) viste sig uafhængigt heraf paa flere Steder, saaledes i Drammen, i nogle Dele af Christiansands Stift og om Trondhjem.

Forkjølelsessygdomme, tildeels med Feber, Hals-betændelser og lettere Brystbetændelser (Bronchitis) vare næsten overalt hyppige om Foraaret. Almindeligst viste disse Sygdommt sig i Strækningen fra Tønsberg til Arendal, hvor de tildeels havde en epidemisk Charakteer, samt i Nordland og Finmarken.

Strubehoste viste sig vel mange Steder og bortrev nogle Børn hist og her, men kun enkeltviis; sjeldnest saaes denne Sygdom langs Vestkysten af Landet nordenfor Stavanger indtil Nordland.

Kighoste var derimod en meget udbredt Sygdom, der nævnes fra alle Amter, kun ikke i Christiania By. Sygdommen var i det Hele mild. Stærkest herskede den i Gudbrandsdalen, i Bratsberg og Romsdals Amter samt i Østfinmarken.

Kusma (Parotitis) gik epidemisk i Christian-

Fig 4. The first printed "Report on the State of Health and Medical Conditions in Norway" (1853).

appear in more detail from the following district reports the health conditions of the domain have been very good in 1853, clearly better than in the preceding year." And as an example 50 years later: "The health conditions were by and large satisfactory".

This introduction was followed by a numerical overview with comments on the conditions of diseases and mortality in the country, often distributed by districts, followed by a thorough analysis of the individual diseases, particularly the acutely contagious diseases, tuberculosis and veneral diseases, as well as infant and maternal mortality. There was also a presentation of statistics on causes of mortality. Psychiatric institutions and conditions concerning the "insane" were also described, and status on vaccinations was a constantly recurring item. Statistics on health personnel were also included.

Following this national overview, there was a corresponding presentation for the districts. The most significant difference is that here there is often a discussion on social conditions, e.g. poor economical ability of the municipalities, unemployment and hygiene among the population and of living conditions as risk factors for a prevailing disease, as well. Such comments in the district overviews were taken directly from de reports of the individual doctors.

Until 1930, selected reports of individual doctors were, partially or in their entirety, published as appendixes to the national reports. The first time that happened was in 1855, the district physicians Gerhard Brock (1813-59) in Inner Hardanger District and Holm Monsen (1812-88) in Midhordland District were the authors (18,19).

After the discontinuation of the institution of district physicians (or district public health officers) in 1984, the county public health officer took over as provider of information to the superior health authorities. Due to reorganizing, and henceforth changes in accountabilities and distributions of tasks within the central health authorities, the status of the reports within the chain of information became somewhat unclear, and still is.

Input to central political authorities is currently planned i.e. through so-called public health reports. These shall be drafted by the Ministry of Health and presented to Parliament. They are supposed to be published annually. The most important expert input to the Ministry comes from central health authorities such as the Directorate of Health, the Board of Health, the National Institute of Public Health etc.

The contents of the medical reports

It must be emphasized that the quality of the medical report was subject to variations, and that applied to the entire period from 1804 through 1984.

However, many of the reports were of a high quality both with respect to form and content, and shed light upon living conditions and development in the local communities. In terms of language they could be outstanding, and some of the reports still have a literary value. Several of them provide thorough descriptions as regards to social and cultural affairs of the local communities, and their content could go far beyond traditional medicine. One may justly regard many of the reports as excellent topographic renditions in the spirit of Hans Strøm.

Professor Anders Forsdahl in Tromsø has done more than anyone else to bring the old medical reports back to light and put them into a new context. He is worth quoting: "….the vast array of information that is gathered in these report gives…a good picture of the living conditions of the population across our country, and the reports represent a unique source of information in a number of ways." (20,21).

It has also been well known that the reports contain landmarks in medical history, that is discoveries or observations that have been unique nationally, and even internationally. Two such examples – which Forsdahl also describes – is the later district physician Andreas Christian Bull (1840-1920) who in his medical report from the municipality of Søndre Odalen in 1868 as the first ever in Norway, and probably the world, described a polio epidemic (21). The other is district physician Johan Christian Lund's (1830-1906) first time description of Chorea Huntington-Lund in the medical report from Setesdalen in 1860 (fig 5). There are also lesser landmarks. In the medical report from Fredrikshald in 1804 from town surgeon Johan Wittkugel (1755-1829) he told that in May 1804 he was summoned to two small girls who "had left their minds and become as insane".

III. Chorea Sti Viti i Sætersdalen, Uddrag af Distriktslæge J. C. Lunds Medicinalberetning for 1860.

Som i forrige Beretning anført, synes Chorea Sti Viti at optræde som en arvelig Sygdom i Sætersdalen. Den kaldes almindeligst „Rykka", tildels ogsaa „Arvesygen." Den optræder i Regelen mellem 50—60 Aars Alderen; begynder som oftest med mindre iøinefaldende Phænomener, der undertiden kun langsomt tiltage og ikke blive videre heftige, saa at Vedkommende ikke synderlig hindres i sine almindelige Beskjæftigelser, men oftere naa de efter faa Aars Forløb en ualmindelig Høide, saa at ethvert Arbeide bliver dem en Umulighed, og de endog have megen Vanskelighed med ad mangfoldige Omveie at føre Maden til Munden; hele deres Legeme, dog fornemlig Hoved, Arme og Overkrop er i stadig, heftig rykkende og slengende Bevægelse undtagen under Søvnen, da de almindelig ere rolige. Et Par af de heftig angrebne ere i den sidste Tid af deres Liv blevne lamme. Sygdommen forekommer i 2 Familier, som her nærmere anføres; Oplysningerne ere vistnok ikke saa fuldstændige, som det kunde ønskes, men dog altid Noget at begynde med, saafremt Lægerne i Sætersdalen for Fremtiden ville have sin Opmærksomhed henvendt paa Sygdommen.

Fig 5. Cut from the first description of Chorea Huntington-Lund in the National medical report of 1860.

"They were intensely attacked by convulsions, confusion of their senses, gritting of teeth etc." In the children's pockets there was found "entire pieces of henbane roots", hence it was a case of henbane poisoning (Hyoscyamus niger). The situation, the symptoms and the treatment are properly described, and this is probably the first time this condition has been described in medical terms in this country (12).

The doctors often seized the opportunity in the medical reports to comment on the appearances and causes of diseases. As early as in 1804 county physician Christian Jesper Seip (1751-1806) in the county of Smaalenene commented on the causes of "radesyke" (12) Around 1800 it was a not unusual opinion that such patients might be subject to diet, and in particular the consumption of fish was mentioned. With a keen ability to observe as well as common sense, Seip boldly countered such a notion: "…I already doubt, that the eating of fish plays so much of a part, as is generally assumed, as at the Hvaløerne (a group of islands just off the coast), which is where in the district that most fish is being caught and eaten, I have so far never during my time in this office encountered one who has been ill of this kind, whereas there are even several from other parishes, where the general public rarely or never enjoys fish…"

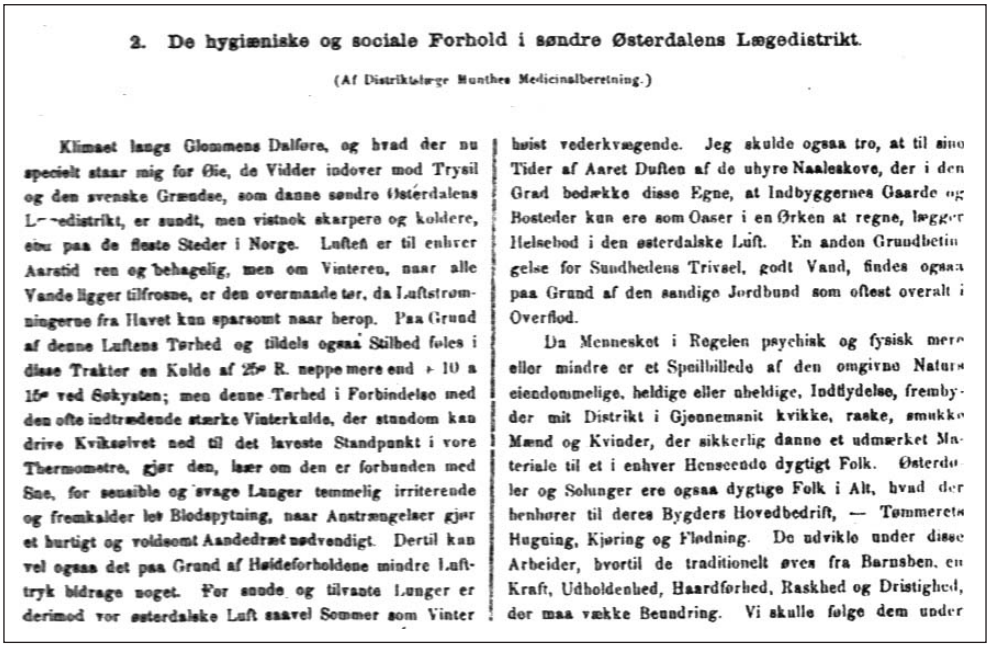
The 19th century is known as a dynamic century, with major ideological and philosophical controversies. This is reflected in the medical reports as well, i.a. in the view on "the veneral disease". In his medical report for Hedemarken county of 1820, county physician Christian Lintrup (1768-1844) expressed grave concern over the increase in "the number of veneral patients" and commented that he found the cause of "the ever increasing occurrence of veneral diseases, is unobjectionably the among the public too frequent so-called night running…", that is the nocturnal visits to maidens in the country (22). He was aware that this was an age old custom, but because of what he taught was their correlation with the increasing occurrence of sexually transmitted diseases, he campaigned hard against the nocturnal visits in writing as well as in speech. Lintrup had studied in Copenhagen towards the end of the 18th century, and was understandably influenced by the liberalism and optimism of the age of enlightenment. Towards health problems his actions and arguments were predictably rationally based. In his objections to the nocturnal visits, the physician was joined by the clergy. The arguments of the clergy, however, were motivated by the public's increasing "vice", which was measured by the number of children born out of wedlock.

The opinions of the clergy and the medical profession on the general morale coincided increasingly as the doctors from the era of enlightenment

were reduced in numbers. This we can see documented in the extensive reports from district physician Christoffer Munthe (1816-84) in southern Østerdalen district. In his voluminous and interesting report fra 1871, he wrote about the proliferation of vice, laxity and lewdness among substantial parts of the population, and reminisced about those days where "there still was domestic as well as infant discipline", and the "sermon and hymn books still did not have to share space over the high seats with neo-political newspapers and rationalist writings"(23) (fig 6). The ideas in vogue were now the conventional and moralist Victorianism with its utilitarian philosophy, materialism and transfer of responsibilities unto the individual. As most people, Munthe and his colleagues were products of their times.

There are several such examples in the medical reports. In 1896, district physician Johan William Welle (1851-1915) in Rendalen wrote that "their (the workers') poverty is mainly due to a lack of sense of any kind of economy and the incompetence of the women regarding all kinds of domestic activities…" (24).

It is difficult to document that the 19th century doctors had particularly liberal political or social views. They were as most public servants, serious



2. De hygiæniske og sociale Forhold i søndre Østerdalens Lægedistrikt.

(Af Distriktslæge Munthes Medicinalberetning.)

Klimaet langs Glommens Dalføre, og hvad der nu specielt staar mig for Øie, de Vidder indover mod Trysil og den svenske Grændse, som danne søndre Østerdalens L[illegible]edistrikt, er sundt, men vistnok skarpere og koldere, end paa de fleste Steder i Norge. Luften er til enhver Aarstid ren og behagelig, men om Vinteren, naar alle Vande ligger tilfrosne, er den overmaade tør, da Luftstrømningerne fra Havet kun sparsomt naar herop. Paa Grund af denne Luftens Tørhed og tildels ogsaa Stilhed føles i disse Trakter en Kulde af 25° R. neppe mere end + 10 a 15° ved Søkysten; men denne Tørhed i Forbindelse med den ofte indtrædende stærke Vinterkulde, der stundom kan drive Kviksølvet ned til det laveste Standpunkt i vore Thermometre, gjør den, lær om den er forbunden med Sne, for sensible og svage Lunger temmelig irriterende og fremkalder let Blodspytning, naar Anstrængelser gjør et hurtigt og voldsomt Aandedræt nødvendigt. Dertil kan vel ogsaa det paa Grund af Høideforholdene mindre Lufttryk bidrage noget. For sunde og tilvante Lunger er derimod vor østerdalske Luft saavel Sommer som Vinter hvist vederkvægende. Jeg skulde ogsaa tro, at til sine Tider af Aaret Duften af de uhyre Naaleskove, der i den Grad bedække disse Egne, at Indbyggernes Gaarde og Bosteder kun ere som Oaser i en Ørken at regne, lægger Helsebod i den østerdalske Luft. En anden Grundbetingelse for Sundhedens Trivsel, godt Vand, findes ogsaa paa Grund af den sandige Jordbund som oftest overalt i Overflod.

Da Mennesket i Regelen psychisk og fysisk mere eller mindre er et Speilbillede af den omgivne Natur eiendommelige, heldige eller uheldige, Indtydelse, frembyder mit Distrikt i Gjennemsnit kvikke, raske, smukke Mænd og Kvinder, der sikkerlig danne et udmærket Materiale til et i enhver Henseende dygtigt Folk. Østerdøler og Solunger ere ogsaa dygtige Folk i Alt, hvad der henhører til deres Bygders Hovedbedrift, — Tømmerets Hugning, Kjøring og Flødning. De udvikle under disse Arbeider, hvortil de traditionelt øves fra Barnsben, en Kraft, Udholdenhed, Haardførhed, Raskhed og Dristighed, der maa vække Beundring. Vi skulle følge dem under

Fig 6. Medical report from the district of Søndre Østerdalen by district physician C. Munthe. Printed as an appendix to the National report of 1871.

about the execution of their duties, somewhat pompous and usually certain about their own authority. The medical reports hardly suggest that they were characterized by a particularly humanistic mind, which one perhaps would have thought from the ideology that many of them considered the basis of their chosen profession. It was rather a distinct sense of duty that was the backdrop of their selfless endeavours, and this encompassed a traditional paternalistic attitude towards their patients.

The significance of the reports

Particularly during the 19th century, the edited reports constituted an important fundament for decisions on health policies, because the Ministry to a large extent relied on these when giving policy advice. During this period, the reports documented the most important preventive measures available to society concerning important public health problems such as acutely contagious diseases and infant mortality. This applies particularly to tracking and isolation, the vaccination against smallpox and the expansion of midwife services in the districts. These measures and their significance have been described more extensively by Ole Georg Moseng (5). The emphasis the health authorities put upon these preventive measures also appears from the national report of 1814 (13). Here all doctors were listed who had submitted "the ordered medicinal report", as well as all those who had neglected to do so! (fig 7). In the report, the handful of doctors who had made great efforts regarding the vaccination and other public duties pertaining to their offices were also hailed and mentioned by name.

With the modernization of the country more sources of information arose, and new information technology and knowledge contributed hereto. As a consequence, the importance of the medicinal reports as a source of information decreased. The increased role of the media as a provider of input to the political process during the 20th century should not be underestimated in this regard.

A reading of the reports after World War I shows that they almost dried up. They presented a more anonymous expression than previously, and no longer had the broadly informative value as they used to have. As of the 1960s it became clear that their rigid form no longer was adapted to the new panorama of diseases and the change in risk factors towards the public health. In that form the reports hade become obsolete when they ceased to be written in 1984. In the 18th century however, public doctors and their reports were significant to the local level primarily in that they established the political importance of public health, they inspired debates within the expanding and ever more politically conscious urban middle class and

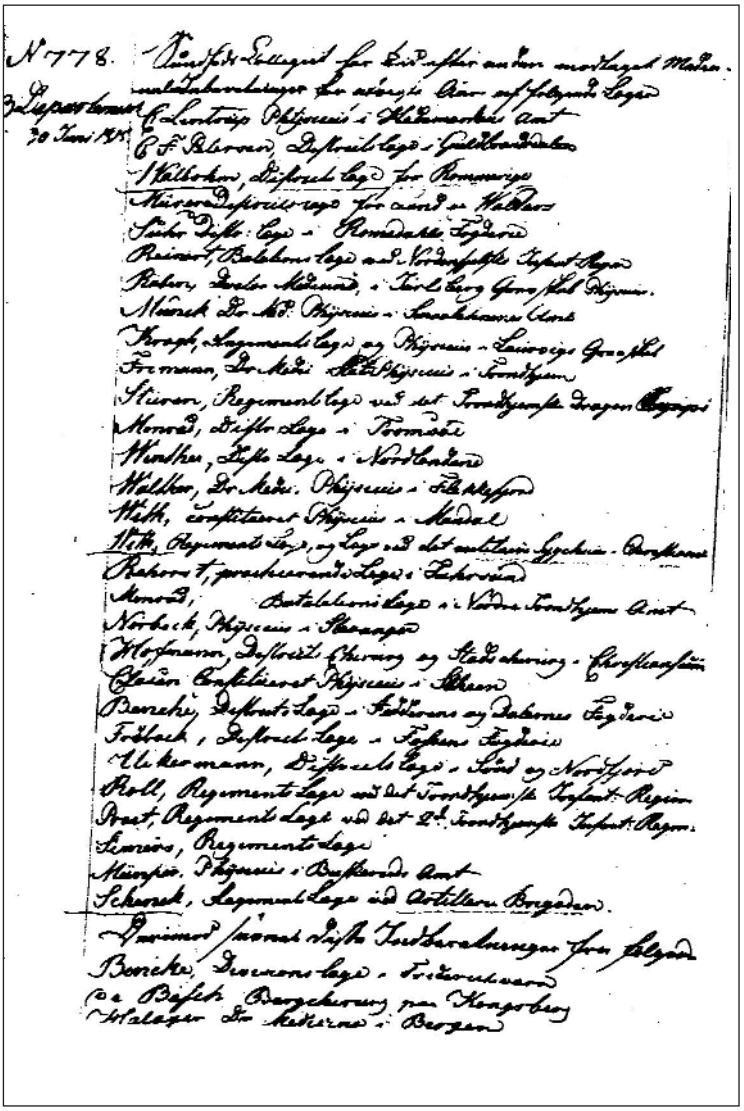


Fig 7. Cut from the central report to the ministry in 1815. The names of the doctors who had presented their reports are listed, as well as those who had not. National archives.

among the farmers in the countryside. At the same time, the doctors were able, through the health commissions and the reports, to identify local hygienic problems with a bearing on public health. This is well documented, i.a. through studies initiated by the District College of Bø, Telemark (25).

The medical reports today

In addition to various purposes of education, i.a. at the higher institutions of health education and the departments of medicine, the reports are used

to today primarily as a source for studies of cultural and social history. The most prominent example is the two volume work on the history of the health services in connection with their 400 years anniversary in 2003 (26). The town and country books, and other local history related literature of the history of local communities, have during the last decades increasingly been professionalized. Now, many of these authors – often historians – actively employ the medical reports of the national archives as a main source of reference in writing social and health history of the community or municipality (Ola Alsvik, historian, personal account.).

This literature has successively been ever improved in presentation and, not least, content. They attract a wide readership, and there is allegedly a moderate, but increasing number of articles on subjects of cultural history based on, among other sources, the medicinal reports. In particular did the 400 years anniversary of the health services in 2003 inspire this development. This indicates that the medical reports will be of increased prominence locally in the future, and it is not hard to agree with the following statement: "The local reports, as a rule recorded in the old gothic handwriting, are best suited for local studies, and they are often used for this purpose"(27).

The regional and central medical reports have been subject to better quality testing than the local reports, and best suited for research. The most important example, and where the medical reports have contributed significantly to the underlying source material is "The Shaping of a Profession, Physicians in Norway, past and present". This is the result of a project cutting through academic boundaries, which analyzes the rise of Norwegian doctors and the health services from a number of academic vantage points (28).

The number of future users of these sources seems to be increasing, as demonstrated by the newly established "National inter-academic network for medical history" rooted in circles of social science at the universities in Bergen and Trondheim. Just like other archives of sources in cultural history it is therefore desirable that they be more accessible, through means such as transcriptions and the Internet.

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A museum project following the introduction in 2004 of new Norwegian legislation forbidding smoking in restaurants

Michael 2005; 2: 236–43.

Summary

In June 2004, new Norwegian smoking restrictions were put into effect. Smoking in restaurants was from now on forbidden. Since it was clear that this latest development in Norwegian anti-smoking legislature would entail a significant social behavioural change, the Akershus Fylkesmuseum decided to launch a project that would chronicle the effect of the new law. Media discourse was studied, items relating to smoking were collected and smoking behaviour was documented in pictures. The project followed the process during the initial, transitional phase and the first few months of the smoking ban. As it turned out, despite pessimistic predictions, the smoking ban was fairly easy to implement. This fact raises many questions. Emotionally smoking is a highly contentious subject. In previous decades smokers freely could pollute the air in cars, trains, homes, waiting rooms, workshops, offices and other public places. This has changed completely, and in the current setting, where health has become a top priority and the dangers of smoking and passive smoking smoke are widely known, many smokers find themselves more marginalized than ever before.

Taking an initiative

In 2004, the Akershus Fylkesmuseum (Akershus County Museum) embarked upon a museum project following the New Anti-Smoking Law coming into effect[i]. The museum did a photographic documentation, collected various items related to smoking, and conducted research work on the topic. The museum project has so far resulted in some popular articles and a touring exhibit[ii]. Research articles about the project and a comprehensive internet website are coming soon[iii].

Scene from a pub before the new anti-smoking law. The smoke is hanging low in the smoking zone. (Photo Camilla Damgård, Akershus Fylkesmuseum 2003.)

Why would a regional museum take an interest in a new anti-smoking law coming into effect?

The Akershus Fylkesmuseum has specialized in research concerning the present day time. It is also a part of the Norwegian contemporary museum network[iv]. The purpose of contemporary museum projects is to document circumstances and collect items that illustrate central topics from contemporary everyday life. The chosen topics are often in flux, constantly changing. Concerning the new anti-smoking law, we were able to foresee a social behavioural change in at least one fifth of the Norwegian adult population. From an indoor social setting, often consisting of food, drink and conversation around the table or at the bar, smokers would now have no choice but to go outside to smoke. We were curious about this change in social behaviour. How would smokers react to the new anti-smoking law? What effect would it have on general viewpoints regarding smoking? We also took a great interest in preserving items connected to smoking in an interior setting, such as ashtrays and no-smoking signs from bars, cafés and restaurants. And we wanted to do a photographic documentation of the smoking behaviour that would soon be against the law. We knew that this documentation would be historical evidence the moment the new anti-smoking law came into effect on June 1, 2004. After this date, the documented historical smoking behaviour would be prohibited.

The new anti-smoking law

The first Norwegian anti-smoking law came into effect in 1973[v]. Since then, the law has been amended on several topics concerning smoking. The new amendment in § 6 is in everyday parlance referred to as the new anti-smoking law. Coming into effect, the law means that:

- Smoking is not allowed where food and/or drink is served.
- Bars and restaurants are not allowed to provide special rooms for smokers.
- Smoking is allowed in outdoor areas, as long as smoke doesn't filter in to the indoor area.
- Owners of eating and drinking establishments must enforce the smoking ban.

The purpose of the new anti-smoking law is to protect employees and others against "second-hand smoke" (passive smoking). It was not conceived to reduce smoking. But Dagfinn Høybråten, the Norwegian Health Minister at the time, announced that it would be a positive secondary effect if smoking was reduced. Therefore, pro-smokers have claimed the motivation behind the new ban on smoking to be ambiguous[vi].

In shopping centers smoking zones often looked as cosy small huts. These interior buildings do no exist anymore. (Photo Camilla Damgård, Akershus fylkesmuseum 2004.)

The practical accomplishments of the museum project

The author was in charge of the museum project. The main responsibility was to conduct research on the topic and to collect items related to smoking and various documentations about the enforcement of the new anti-smoking law. The collecting of documentation concentrated primarily on the media interest generated by smoking as a hot topic: features, smaller articles, columns and debates in newspapers and on television. The project has attempted the not inconsiderable task of balancing the views of both pro-smokers and opponents of smoking.

From May to July 2004, photographer Camilla Damgård was engaged in pictorially documenting smoking behaviour both before and after the new law came into effect on June 1, 2004. The focus of this pictorial documentation has been smoking behaviour in indoor public places: the smoking zones in cafés, bars and restaurants. And smoking behaviour in exterior public places: shopping centres and sidewalks in front of cafés, bars and restaurants. It was also of importance to the project to document the smoking zones themselves, interior installations that were removed after June 1. On May 31, the photographer was especially busy. Many smokers were gathering in bars and restaurants to "celebrate" the last cigarette in an indoor public space.

Although the photographer made a great effort to inform potential subjects about the project, she was often met with rejection while attempting to get permission from those who would be in the documentary pictures. Many smokers did not want to be shown while smoking. Only after discovering that the photographer was a smoker herself (and one of their own), did some of them agree to take part. We interpret this reaction as a result of the perceived condemnation and stigmatizing many smokers have experienced over the last few years.

Smoking viewed as a public matter

Thirty years ago smokers "ruled" the air in cars, trains, homes, waiting rooms, workshops and offices. Smokers often paid little attention to others – neither children nor adults with asthmatic or allergic reactions to smoke. Restrictive smoking laws have slowly crowded out the smokers and smoke from public indoor places. Smoking behaviour has undergone great changes, as has our view of those who smoke.

It seems as if health, both as an abstract concept and as a personal experience, has taken over as one of the fundamental ideas that establish and legitimize the Norwegian modern society. To heal, care for, protect and prevent illness and health problems in the general population, the Norwegian

Three friends in a smoking zone in a shopping center. They eat, drink, smoke and talk. (Photo Camilla Damgård, Akershus fylkesmuseum 2003.)

society has built up a large healthcare system consisting of hospitals, doctors, nurses, health experts etc. Comprehensive systems of this kind are not solely based on scientific and practical knowledge derived from experiences and research, but do also tend to have a moralistic and ethical side. The health system's biggest aim is to protect the people against health problems for the benefit of the people. Therefore it is in moralistic terms expected that the people are working together with the health system in this common project.

In many ways, smokers do the opposite. They reject the idea of health, they damage their own health and they endanger the health of others by exposing them to second-hand smoke.

If we use the classical theory of danger and purity developed by the social anthropologist Mary Douglas, we will see that smoking behaviour and smoke in many ways fit into her description of a pollution *danger*[vii]. Smoking as a phenomenon is *equivocal*. It is a kind of danger that consists of both positive and negative feelings. Positive for the smoker, who equates it with being together, drinking, eating and relaxation, and negative for the non-smoker, who equates it with dependence, bad odours and health risks. For non-smokers, the smoke is easily recognized but it is *difficult to control*. The smokers are among us, they are our friends, our family. To get rid of the pollution danger, the non-smokers can use two strategies:

On the evening of 31. mai 2004: The last sigarette before the new anti-smoking law comes into effect. (Photo Camilla Damgård, Akershus fylkesmuseum 2003.)

1. Affect the smokers to quit smoking.
2. Contain the smoke in a given area or banish the smoke from the social space altogether.

The two strategies described above were put into practice when the new anti-smoking law came into effect, the accompanying debate including a wide spectrum of positive and negative reactions.

Newspapers engage in "conversation" on the subject of smoking

The amount of information in the media on the topic of smoking, not to mention the accompanying debate on the subject, paints a picture of a conflicting theme that holds great interest for many Norwegians[viii]. Theoretically, we consider the media to be leading a kind of unending conversation on behalf of the population. In their own kind of face-to-face conversation, the newspapers operate on a broad scale of expression – sometimes the tone is serious, sometimes it is angry and combative, and sometimes it is gossipy, ironic or humorous. Smoking as a theme has been examined in a multitude of ways.

The media has paid close attention to the new anti-smoking law from the very beginning. At that time, the debate dealt with lofty questions such as fresh air seen as a human right versus the personal freedom to smoke.

Soon after the law had passed, the focus turned to questions of a more practical nature: What effect would the law have on the catering trade, the night life, the behaviour of smokers? In this phase, many articles dealing with other countries and their experiences with anti-smoking laws appeared. The range of articles painted a broad scenario from doomsday prophecies to positive expectations. From time to time, newspapers printed statistics for diseases caused by smoking and the ongoing decrease in the number of smokers. The amount of articles escalated during the month of May. Many newspapers started up their own health series on how to quit smoking. A climax was reached on the evening of May 31. Television and print media had flocked to restaurants and pubs, on hand to report from the last cigarette smoked indoors. The days following June 1 went by in a peculiarly quiet atmosphere. Many predictions did not come true at all. The smokers did not protest and the effected service industries seemed to adjust to the new conditions. The newspapers looked for violations of the new law but hardly any occurred. As autumn set in and temperatures began to fall, new themes relating to smoking emerged in the media. Some establishments began to suffer financially, while people had to stand outside in the cold weather if they wanted to smoke. Many newspapers printed articles about creative and more or less legal solutions to bypass the restrictions of the new anti-smoking law. All of these solutions were prohibited by the authorities soon after.

A survey of the new anti-smoking law coming into effect shows much noise in the media but a quietly practical transition to new conditions for smokers in restaurants, bars and cafés. The apparent general acceptance of the law is interesting from a research point of view.

Many initiatives have worked together to make this change in social behaviour through legislation possible, including scientific evidence of the risks of smoking and second-hand smoke, and the belief in health as a superior goal for the good life. This creates a great interest in protecting against dangers that can damage the body. Smoking is offending the idea of *health* and is increasingly looked upon as a shameful dependency. Many smokers react with resignation, powerlessness or anger. One of the main reasons for not protesting is probably the sense of guilt. People who feel ashamed or sinful do often not consider their own arguments to be worthy in a conflict. With ever more restrictive anti-smoking laws, the individual freedom to smoke has been sacrificed for the sake of public health, which in turn displays a fundamental change in the values that shape our society´s way of thinking. Smoking is not simply seen as the smoker´s private concern, but as a form of pollution that causes problem for others. Conse-

On June 1, 2004: Two of the regular customers smoking outside their favourite pub. (Photo Camilla Damgård, Akershus fylkesmuseum 2004)

quently, smokers are met with restrictions and moral condemnation. This final point has perhaps been one of the most influential circumstances in leading to the general change in smoking behaviour.

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[i] The project has been financially supported from the ABM-utvikling, Statens senter for Arkiv, Bibliotek og Museum.

[ii] "Da det ble ute med røyking inne" by Kirsten Linde, *Akershus imellom*, nr. 4, 2004. "Giftig historie" by Caroline Hambro, *ABM*, utgitt av ABM-utvikling, nr. 1, 2004. The exhibition "Røyking forbudt" can be lent from Akershus fylkesmuseum.

[iii] The internet website "Historisk røykeprosjekt" was released on the *www.kulturnet.no* in the first months of 2004.

[iv] Information about the Norwegian contemporary museum network is to be found on *www.maihaugen.museum.no/samtid*

[v] *Ot.prp.nr.23* (2002-2003), Sosialkomiteen Lov om endringer i lov 9. mars 1973 nr. 14 om vern mot tobakksskader (røykfrie serveringssteder).

[vi] Examples from the discussion in: "-Røykeloven fører til røykekutt" VG Nett, 26.12.03, "Rettstilstanden under den nye røykeloven" feature in Aftenposten, 28.05.04 and "Forskar stumpar røykelova", NRK.no 15.04.04.

[vii] Mary Douglas *"Purity and Danger": an analysis of concepts of pollution and taboo*, vol. 2, 2003.

[viii] We have concentrated our interest on three types of newspapers by systematically collecting all kinds of articles etc about smoking in: Aftenposten (nationwide), VG (tabloid), Romerikes Blad (local) and followed up smoking themes of interest in other newspapers and television.

[ix] Harald Hauglie, Akershus fylkesmuseum has assisted by the translation.

Bjørn Vidar Johansen

Country living in a suburb: The aspect of health in 19th century Norwegian villa architecture

Michael 2005; 2: 244–51.

Summary

When the Norwegian capital Christiania experienced its rapid growth during the latter half of the 19th century, the idea about the suburban villa as the housing of choice for the more affluent classes gradually developed. Among the benefits of the villa were also strong opinions as to the healthiness of living premises with an abundance of light and fresh air. The influence by the architect behind the Royal Palace, Hans Ditlev Franciscus Linstow, through the introduction of his favourite Swiss style for wooden houses, set the stage for much of the building of villas in Norway in the times to come.

Introduction

The idea of nature as a place of recreation is an important part of the Norwegian culture. The concept of nature, or rather looking at the great outdoors as something particularly Norwegian *and* something healing, was a central part of creating a specific national culture towards the end of the 19th century. Even today, when being asked what they like the most about their city, the majority of the Oslo inhabitants are bound to reply "the forests" or "the fjord". The favourite qualities of their city are exactly the features which are in contrast to the idea of urbanism itself. In 2005, celebrating the centennial anniversary of the dissolution of the Swedish-Norwegian union, being in contact with nature is still regarded as an important way of keeping or regaining your health, physically as well as mentally.

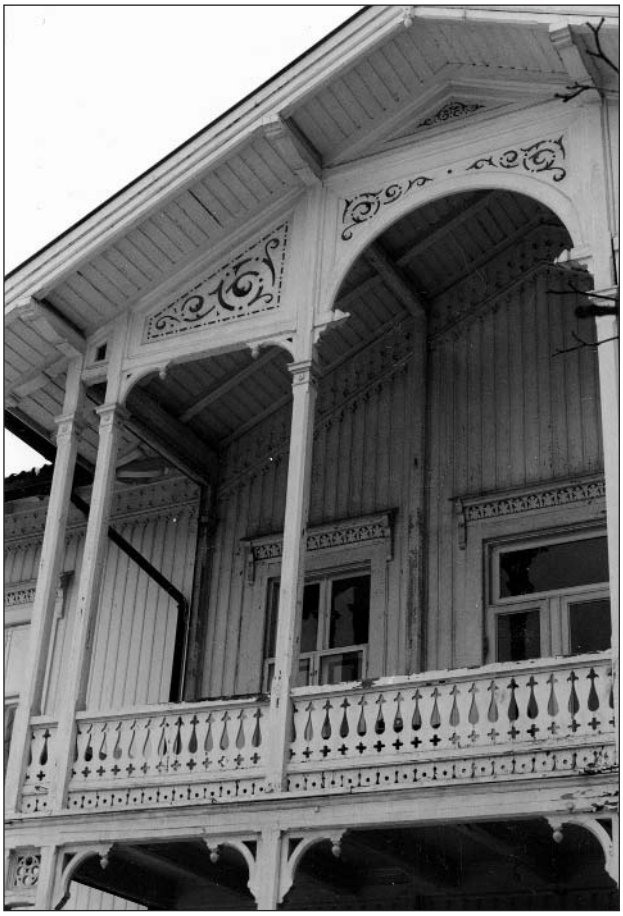
The growing enthusiasm of the Norwegian landscape in the latter part of the 1800's, as well as a new interest in folk art, old wooden architecture and ancient customs, coincided with the industrial revolution and a new mobility towards the larger cities. In a country desperately searching for a national identity, the fascination of the past was combined with a new awareness of science, health care, social problems, living conditions and

The glazed veranda of the Augustenborg villa gave a stunning view of the fjord from the inside, and beautfied the garden scene on the outside. (Photo Bjørn Vidar Johansen)

international relations. Moral and modernity defined the period. All aspects came together in the introduction of a new type of dwelling: The villa.

A new ideal of living

The introduction of the villa was closely connected to the construction of the Royal Palace in Christiania (now Oslo). Completed in 1848, the classical Palace introduced a completely new chapter in the architectural history of the country. Using modern building materials, prefabricated elements and importing craftsmen from abroad, the Danish-born architect, Hans Ditlev Franciscus Linstow (1787-1851), was very much orientated towards the newest principles of European architecture. Linstow chose the Pompeiian style for many of the interiors of the Palace, with one important exception: The walls of the waiting room, leading into the King's reception room, were painted as to give the spectator a feeling of sitting inside an open, wooden pavilion. Looking out on spectacular, open landscapes through green vines and vegetation, the room was the first major manifestation of the coming Norwegian national romanticism. More important in



A faded beauty aside the fjord. Open verandas like this one supplied fresh air to the afternoon tea. (Photo Bjørn Vidar Johansen)

this case, however, was the statement that the painted panoramas should calm the nerves and give the guests a feeling of relaxation and harmony before facing their King.

When visiting Germany, Linstow became interested in the idea of the villa. In Berlin, groups of villas had been constructed, surrounding the various palace parks. Here, their main purpose had been to create a picturesque effect, but soon the idea had developed into the establishment of suburbs at the edges of the city. Many of these villas, along with cottages, stables and pavilions, had been built in the so-called Swiss style. Long roofs, reaching over the porches or verandas, gave shelter of the hot sun or the rain, making it possible to enjoy the fashionable afternoon tea or hot chocolate outdoors. The new industrial methods of producing glass resulted in larger windows than ever used in dwellings before. The rooms were spacious and airy. The completely new way of planning and arranging rooms were largely influenced by the British and their special interest in home planning and living conditions. Instead of the French én-filade, rooms in a row without corridors, the rooms of the villa were now arranged around a central hall. This gave new opportunities of running a more specialised household, where the functional aspects were developed, as well as stimulating the idea of having special rooms for the various activities. The new plan was instrumental in the development of the idea of separating private and public spaces in our homes. It also contributed to a new concept of morality, of

the secluded, of the secret, not at least regarding sexuality. However, all of this was very closely connected to the idea of keeping the rooms clean, both physically and symbolically, and thus keeping a beautiful and healthy lifestyle. This revolution in mentality was fundamental for the housing policies of the 19th and 20th centuries, and is even today, at the beginning of the 21rst, the basis of most building projects.

In modern time, the importance of the villa garden also originated in Britain. In fact, the concept of a villa is so closely connected to a garden that it can't really exist without it. If a broad vista shouldn't be possible, a large garden, or the view over many gardens, would give the feeling of being in nature. Spending time outdoors, growing flowers and vegetables and enjoy green, aesthetic surroundings represented important qualities. The villa and the garden were often planned as a whole. The building should add beauty to the garden scene. When indoors, or at a veranda or a balcony, the garden should add beauty to the view and fill the air with a scent of flowers.

An instant success

After having returned to Christiania, Linstow started planning a Guard's House as well as a villa for the poet Henrik Wergeland (1808-1845), situated in the Palace park. Executed in 1843, these still existing buildings were not only the first true examples in Scandinavia of the wooden Swiss style, the villa was also the first of the picturesque, suburban kind that would soon appear in and around the major Scandinavian cities. Linstow soon erected a group of villas at the edge of the park, very much influenced by current British town planning. The closeness to the Royal Palace, the picturesque architecture and the romanticism of the era made the area an instant success. According to Linstow, the Swiss style was particularly suitable for a new Norwegian architecture, as he regarded it to be a refined version of the traditional, ancient wooden farm houses one could find in the countryside and the distant mountain valleys. Whatever a resemblence or not, the Swiss style turned to be the most popular architectural style for almost a century to come, being used for everything from farm houses to railway stations, schools, hotels, bathing resorts, hospitals and not at least all the sanatoriums erected by the end of the 19th century.

By the 1860's, villas were also erected as summer houses on the island and coast of the Christiania fjord. Now, the growing middle class built their own summer houses at the outskirts of the city to enjoy the leisure of the season. Fresh air and sea water were attractive features of the chosen areas. Many of the new villas were situated close to larger bathing resorts and spas, growing up along the fjord as the century progressed. These fashion-

able resorts with their various more or less scientific programmes were instrumental in the new awareness of personal health. Soon the villas also dominated the hills surrounding the city and its fjord, following the new railway lines which made it possible to work in the city, but live in the country. The benefits of the countryside could be enjoyed all year. As their present European counterparts, and the ancient Romans (the word "villa" itself being a roman word, meaning "countryside retreat") long before them, the people of Christiania now saw the villa as an ideal way of living. Newspapers were full of complaints about the pollution, dirt, noise and low morals found within the crowded city. The recent concept of the nuclear family would need protection from these dangerous factors. The first suburban villa areas, depending on the services of public transport, were born. One of these was Ljan, a local community south of Christiania, enjoying a stunning view over the fjord.

A room with a view

By the 1890's, more than fifty wooden villas had been erected in the steep hills of Ljan. They were all in different variations of the Swiss style as well as the fashionable Dragon style, expressing a need to develop the former

Linstow's Guard's House introduced the Swiss style to Norway and Scandinavia, resulting in a building boom of architecture associated with both tradition and development. (Photo Bjørn Vidar Johansen)

into something more "national". Quite a few where prefabricated. The Norwegian parliament actively supported the exportation of these houses, focusing on the healthy and practical way of living they represented. At Ljan, all of the villas had at least one veranda or a balcony facing the fjord in the west. Often one of them was glazed, making it possible to enjoy the view longer than in the actual summer season. Many of the villas had also balconies facing north, a welcome resting place during hot days, as well as porches and garden pavilions.

The quick general acceptance of the veranda as a natural part of a home was very much due to the period's strong belief in the healing effects of the fresh air. At the same time it represented a new, semi-private space, both for relaxation and informal entertaining. The three hotels at Ljan, all built in the Swiss style, made a great point of the quality of the air in their advertisements, boasting it had *both* the benefits of the sea and the forest. Particularly the refreshing smell of pine trees were often mentioned, hinting on its antiseptic qualities.

The healing smell of pine trees was also mentioned in an autobiography written much later by Margarita Woloschin, a Russian artist attending the lectures given by Rudolf Steiner (1861-1925) at the local school of Ljan in the summer of 1908. Stronger, however, was her almost obsessive joy regarding the view, and the light, thin air that seemed to be a part of the experience. Woloschin described the feeling of leaving her body and joining old spirits in an immense appreciation of nature. Although romantic and clearly coloured by the occasion, Woloschin also describes a meeting with Steiner. Here, he stated that it was at such places one could still feel the presence of the old gods, not yet having been frightened away by the present materialism and the industrial revolution.

Although a lot more down to earth, the villa people seem to have shared Woloschin and Steiner's views. Letters, literature and interview are full of praise regarding the view, going as far as describing it as a source of everyday mental cleansing. It is obvious that the view was the main attraction of the area. Living with it just outside their windows made them feel privileged, special. In an interview with the paper Morgenbladet in 1935, the owners of the villa Augustenborg stated that the view and changing light had kept the couple healthy and full of energy since they bought the house in the 1890's. It comes as no surprise that all of the villas at Ljan were facing the fjord. The functions of the rooms were arranged more to take advantage of the view than to meet contemporary conventions, making some very unusual exceptions from the period norms.

Pleasing the Health Council

On the contrary to popular belief today, the building restrictions were harsh during the latter part of the 1800's. The architect's plans would need approval from both the local Building Council, as well as the Health Council. These two bodies had no interaction, and the architectural trade papers were full of complaints about the time-consuming arrangement. Some architects claimed that pleasing the Health Council took more energy that actually designing the buildings.

The large, existing correspondence between the owner of the villa Augustenborg at Ljan and the Health Council is particularly interesting. Buying the house in 1897, the new owner Mr. Holm wanted to gradually construct a new wing, as well as improve the light conditions and comfort of the villa. The Health Council was very strict regarding any change which might prevent the supply of fresh air to the rooms. Also, the restrictions regarding indoor bathrooms and toilets were very hard to meet. Special tubes had to be constructed for airing, even in a bathroom without toilet, and the tubes would have to end far over the roof top. Such functions should also be placed as far away from the other rooms as possible. The plan of installing a toilet next to the dining room was absolutely not permitted. When Mr. Holm wanted to move the kitchen to another part of the house, the instructions from the Health Council were clear: Under no circumstance would there be permitted any changes decreasing the level of fresh air, and thus hygiene, of the room.

A comparative study seems to point to the fact that the health councils were particularly strict regarding the construction and remodelling of villas, each one object of a thoroughly consideration. One explanation is of course the large amount of villas being erected during the period and thus its domination of archives today. Another is that the authorities, through the villa movement, saw a new possibility of securing better and lasting living conditions for a growing middle class, while at the same time fighting possible epidemics on a larger scale.

Conclusions

The success of the villa was due to one main factor: The ability of being both the answer *and* the solution to some of the period's many challenges. However, the immediate success in Norway is closely linked to science, romanticism and the new fascination of nature. The villa could adapt its design and location to fit the idea of the outdoors as a space for recreation and health. Now, nature was regarded as an important part of the Norwegian culture and identity. The suburban villas themselves were transformed into the same

The glassed verandas of the Christiania villas gave plenty of light to the interiors. (Photo Bjørn Vidar Johansen)

concept. Being largely constructed in the Swiss and later the Dragon style, they personified a somewhat national continuity between the traditional and the modern.

The awareness of health issues was very much a part of this modernity. Fresh air seems to be regarded as the solution of many problems. At a place like Ljan, however, the view was the main attraction. This is particularly interesting, as it points to another awareness, that of the mind, and how taking pleasure in nature could benefit the general health of the body. Of course, there was also the underlying question of morality: Being surrounded by unspoilt nature in an airy, beautiful villa would keep you heart and mind pure, too.

And why not?

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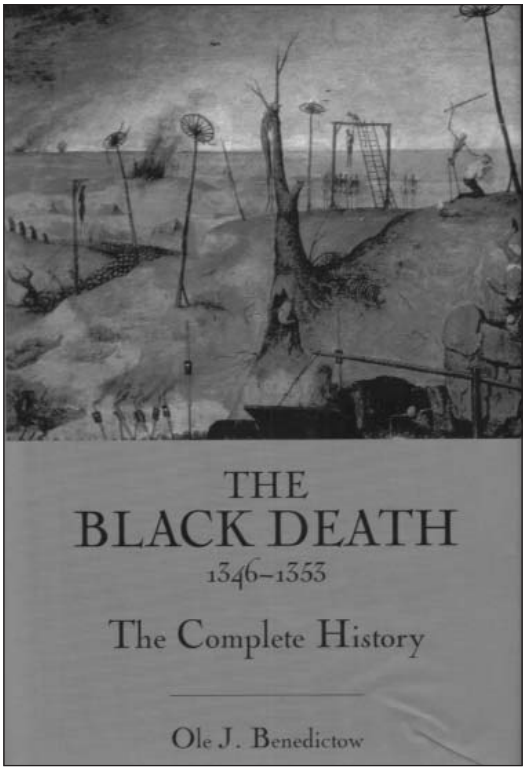
Book review:

Black Death and hard facts

Michael 2005; 2: 252–5.
Benedictow OJ. The Black Death 1346-1353: The Complete History. Woodbridge: The Boydell Press, 2004. ISBN 0-85115943-5. 433 pp. Price: GBP 30.00.



The impact on society exerted by the Great Plague in the 14th century has been subject to scholarly discussions almost ever since. It has been quite clear that the effects were profound and serious and that the epidemic shook most of the medieval world, but the extent and the spread of the disease has been a matter of dispute. The cause for this is obvious: In pre-statistical ages reliable numbers are scarce. Sources often relate to less representative groups e.g. in cities or from higher social classes, hence making it difficult to extrapolate to the general European population where the overwhelming part was plain folks living in villages or were living scattered on small farms in the countryside. And plague was not the only ravaging disease and cause of death.

There are several studies dealing with the cultural effects of the great plague, and among economic historians the redistribution of property following its massive death counts is a core issue. But again, conclusions and general bearings depend on the source situation and the hard facts which can be extracted from them. Besides that, the scaring experience of a contagious disease gives origin to contemporary, yet long living myths and be-

liefs. Still, in the 14th century mechanisms for spread of epidemics were mostly unknown. Observations, explanations and fiction were mixed up with religious and political thinking.

Also in Norway the modern debate about the plague has been vivid. On the local Norwegian scene an interesting question has been how the Black Death influenced the demographical development in the centuries to follow. Around 1980, the Norwegian historian Ole Jørgen Benedictow joined the discussion and has had the history of plague as his main interest and research arena throughout his entire career. His 1992 doctoral dissertation (1) dealt with this topic, and he has also written extensively on adjacent demographic principles of the period in "The medieval demographic system of the Nordic countries" (2). As an appetizer to his present book should be read his article "The Black Death: The greatest catastrophe ever" in *History Today* (3).

What professor Benedictow has done, and what distinguishes his book *The Black Death 1346-1353: The Complete History* from most other histories of plague, is that he has attempted to dig himself down to the hard facts, to the real epidemiology of the disease in a broad perspective, i.e. to how the disease swept like a scourge over the whole range of countries affected.

As a base for his following geographical considerations, part one of the book penetrates what bubonic plague really is like. Being primarily a disease of animals, a disease hurting rats and spread by rat fleas, secondarily infecting and killing humans, often at a horrifying pace, plague has specific traits which identify it epidemiologically from other common and dangerous infections. An example: Rat fleas do not like low temperatures, a fact which explains that plague epidemics as a rule do not occur in winter time.

Applying his epidemiological knowledge on the nearly uncountable sources he has consulted for the different regions, he writes the geographical history of the Black Death country by country in a series of chapters in part two of the book. Much detailed information is presented; e.g. for Norway there are clues that the myth about the ship landing in Bergen in 1349 bringing the plague to Norway is too simple an explanation for the outbreak of the plague epidemic. Claims Benedictow: Norway was hit by the Black Death already in late 1348 when the disease was imported to Oslo; only the winter prevented a further spread that year.

In part three the author sums up the patterns and dynamics observed when studying the Black Death, while the fourth part discusses the mortality in the Black Death. Here, Benedictow addresses core issues in medical history. There is a permanent quest among medical and social historians

for reliable mortality figures: How many were really killed by the plague? This question cannot be answered without thoroughly discussing the tricky source situation. At the same time the results have to be put into the general pattern of medieval demographics. E.g.: Perhaps the real effect of a disease like plague will be underestimated or blurred in the historical sources when looking at the death figures, if there at the same time is a natural increase in population going on. For Norway, this is interesting when discussing the effects of plague on the late medieval population decline, for the centuries after the Black Death.

Case studies from districts in Europe where acceptable figures for mortality may be worked up, indicate that around 60 per cent of the population died. If the European population is estimated at 80 million at this time, it means that around 50 million were swept away by the Great Plague. This fact makes it more than appropriate to name the Black Death "the greatest catastrophe ever" (3). However, Benedictow argues that in spite of the dramatic death toll in the wake of the great plague, the subsequent minor epidemics did not reduce the European population so much; their effect was more to stem the population growth.

Part five of the book: "The Black Death: Its Impact on History" is short, only counting eight pages. The chapter takes up the main points of this vast topic. Here, additional literature should be consulted. Benedictow ends his book with a 19 page bibliography and an extensive index.

It is no doubt that this book will attain a lasting standing as a reference in the plague history literature. The facts presented will serve as a base for further work and as a point of origin for discussing previous literature.

However, this reviewer has an objection, comments to a point which should have been discussed in more detail between the author and the publisher: the title of the book: *"The Black Death: The Complete History"*. The contents, essence and scientific asset of this book are its description of "the epidemiology of the Black Death". This should also have been the title. To establish an epidemiological overview of the spread of medieval plague has been the commitment of the author for decades. In this field he has few competitors. The title of the book should have indicated that, securing that the bibliographic search engines of the modern scientific world would grasp it immediately.

But there is another point too: The subtitle "The Complete History" confuses. It is interesting that the author himself obviously feels a need for bringing a sort of precision of or a disclaimer to this expression in the preface. The book is not complete in the meaning that it covers all aspects of the Black Death with the same depth, as its intention is to concentrate on

epidemiology, which it does. Therefore, by adding the present subtitle, the author may contract criticism which is unjust.

The book also does not complete the history of plague in that respect that it is nothing more to say. On the contrary, this impressive piece of work by Benedictow, summing up nearly a life time of dedicated research, will draw new attention to the topic and stimulate further studies in the field.

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Photograph page 256:

The last plague in Oslo (1624-1924 named Christiania) ravaged in 1654. On Christ's graveyard behind the Deichman Library in Oslo an old monument still is commemorating this event. However, although the memorial was devoted to Christ, the inscription on the stone pays more respect to those who erected it than to Christ or the victims. It reads, starting on the front side (1) and continuing to the right on sides 2, 3, and 4:
(1) IESU CHRISTO TIL ÆRE SOM OPVÆCKER DE DØDE ER DENE KIRCKEGAARD I DEN STORE PESTIS TID Ao 1654. ANORDNET AF *(2)* HANS IACOBSØN SCHØRT K.M. OBERSTE OC COMENDANT PAA AGERSHUS DA I STATHOLDERS. W.H GREGERS KRABBIS FRAVÆRELSE I SLOTES LOV FORORDNET. *(3)* EFTER BISPENS M HENNING STOCHFLEZ BEFALING AF SLOZPRÆSTEN H MICHEL PEDERSØN ESCHOLT DEN 18 OCTOBRIS INDVIET *(4)* VED TØYHUUSFORVALTEREN CAPT LAVRITS PEDERSØN INSPECTION INDHEGNET *On the socket of side 4 of the monument has been carved the following additional text:* DEN FØRSTE HER UDI BEGRAFVEN VAR ARNE SIVARDSØN SOLDAT AF WANG SOGN. (*Photo: Ø. Larsen 2005)*


IESU CHRISTO
TIL ÆRE SOM
OPVÆCKER DE
DØDE ER DENNE KIR
CKEGAARD I DEN
STORE PESTIS
TID Aº 1654.
ANORDNET
AF

Asbjørn Røiseland

Local communities and social capital

Some reflections on the 5th global conference on health promotion: "Bridging the Equity Gap"

Michael 2005; 2: 257–68.

Summary

The objective of the health promotion movement is to restore and develop local communities. In this article, I discuss the way the health promotion movement seems to perceive local communities, and argue that communities should be treated more like constants than variables. Although local communities are hard to restore or develop, the theory of social capital, when applied to local communities, provides some guidelines for public policy and public authorities. The article argues that an important aspect of the implementation process of health promotion, which will influence local communities, is the way public authorities handle and support voluntary organizations and civic life.

Keywords: local community, health policy, social capital, Norway

Introduction

In June 2000, ministers from countries all over the world assembled in Mexico to discuss issues related to health promotion. This WHO-organized global conference was particularly concerned with the role of local communities and civil society in health promotion. One of the conference reports, worked out prior to the conference, was entitled "Increasing community capacity and empowering communities for promoting health" (Restrepo, 2000). The keywords in the title appear numerous times in the English version of the declaration from the conference.

The aim of this article is threefold. First I would like to discuss the way the "Health promotion tradition" seems to define and understand local communities. Then I will argue that civic life in most countries has undergone considerable changes during the last generation: changes that are not supportive to the traditional concept of local communities. Finally, I will

argue that, in order to empower people and communities, we need to think of local communities in new ways. Based on the theory of social capital, I will present an alternative approach, and then discuss its practical and political implications for the following national implementation process.

The Mexico declaration and its forerunners

The World Health Organization (WHO) has for years been an important arena for policy initiatives regarding health and health promotion. During the last 15 years, so-called "global conferences" have structured the work of WHO, and a clear line can be drawn from the very first global conference in Ottawa in 1986, where local communities were defined as a main level for health promotion, to the 5th global conference in Mexico.

The Mexico conference and its forerunners express a widespread feeling that we need to restore local communities and group belongings in western societies. Most governments in the rich western part of the world express ambitions in this direction, and a lot of money and time is put into local projects and plans. But how likely are they to succeed?

The idea that social entities can be planned and more or less constructed is widespread among health promotion workers. Often, saying "community", one really means "target group" and one asks for "management" (Mittelmark, 2001). This position implies perceiving (local) community as a manipulative variable. The following reasoning starts out from an opposite position. Most often local communities are constants, hard to change in short time-spans, influenced by a large number of variables, and there is no common theory covering all possible variables influencing the thing that one has the ambition to change.

Following this argument, the success of health promotion work depends on how the chosen strategy fits into the processes and the social units one aims to change. Therefore, in order to implement the ideas under the health promotion umbrella, we need to know the present state of civil society and local communities. Under what conditions will a government such as the Norwegian, have to implement the actions necessary for the fulfillment of the Mexico declaration? Does the terrain match the map?

A typology of local places and their sociality

The health promotion movement gives a lot of attention to *local* communities, meaning local places with certain social structures. But "local places" does not make up a homogenous category. We can easily observe large dif-

ferences from place to place. Some places are part of something bigger, i.e. being an urban district, and some are isolated, rural areas. If one digs deep into the social elements of local places, one will find considerable differences between places which, at first glance, look very similar. In one place they may have the capacity to cope with serious common problems, whereas in the next place they do not seem to possess this ability.

By doing research over years, I have experienced that the variation in Norwegian localities, according to their social life, can be reduced to at least three types of places. These three types, the fragmented, segmented and consolidated places, cannot be perceived as deep analytical categories, but they may help us clarify the concept of "local community" and point to some problems regarding how the concept is used.

Fragmented places

Fragmented places are more or less fragmented because people living there are different on a broad front, ranging from culture to wealth and occupational status. Typically people are loosely linked to each other, there may be much migration in and out, and homes are sometimes designed in an individualistic way (by i.e. backyards). In such localities, there are few arenas common to all citizens, and most people know just a small proportion of the entire population in the locality. In some fragmented localities, people do their daily business outside the locality, and the locality has the characteristics of being a "dormitory town". Fragmented places appear to be no more than the aggregate of each individual living there, their families and households.

Such a place will probably have a limited potential to cope with common problems that are not solved by local political authorities (i.e. crime, environmental problems, etc.) When bad things occur, and local political authorities (if they exist) are powerless, people will tend to move away, rather than take the initiative to solve the problems themselves.
If we use the concepts introduced above, we can say that fragmented places are localities characterized by a weak degree of social life.

Segmented places

Segmented places are characterized by strong social links, and represent an obvious contrast to fragmented places. In segmented places, there will be numerous persons engaged in neighbourhood and local community affairs. But still, there will be no common understanding of whom or what defines the place. The tension between different groups may be extensive. In Norway, this is typical in places where people from different groups of working

life meet. People from agriculture and fishing represent traditional values; people from secondary industry are focused on industrial development and growth, whereas people working in the public sector may be more representative of academic values and the academic way of living. Segmentation may also stem from other sources, i.e. ethnic background (Norwegians versus immigrants), age (the old generation versus the young generation) or religious differences.

Often, one can observe that the segmentation is expressed by physical structure, i.e. in the way that residential areas are organized in line with the social structure. Industrial workers settle in one place, academics in another, etc. This separation makes it hard to organize common activities, and to solve common problems.

One can say that segmented places are characterized by being localities with more than one social life.

Consolidated places

Consolidated places are characterized by people that are similar culturally, socially as well as economically. These are often societies with strong social links, and most people are involved with each other, and share common values and a moral universe. Dissenters may be welcome, but will seldom settle for a long time. This selection, based on values and morals, will over time make the locality even more strongly consolidated. In a Norwegian setting, the consolidated place is often synonymous with small villages, dominated by agriculture and/or fishing.

We may say that consolidated places are localities characterized by one single, strong social life.

Classic theories of local communities

In classical theory one has tended to interpret local communities as something similar to the "consolidated locality", as defined above. This implies a place characterized by a homogenous social structure, where most people face the same opportunities and obstacles. This definition comes close to the communitarian perspective on (local-) communities (Etzioni, 1995.)

In my view, this is also "the place" that WHO argues in favour of when they, in the "Health Promotion Glossary" define a local community as:

> «A specific group of people, often living in a defined geographical area, who share a common culture, values and norms, are arranged in a social structure according to relationships which the community has devel-

> oped over a period of time. Members of a community gain their personal and social identity by sharing common beliefs, values and norms which have been developed by the community in the past and may be modified in the future. They exhibit some awareness of their identity as a group, and share common need and a commitment to meeting them». (WHO, 1998, cited in Restrepo, 2000:4).

However, two problems immediately occur when using this definition. First, we can argue that the idea is unrealistic, and therefore provides no guidelines for public policy. Due to processes of globalization and differentiation, there are few "consolidated places" left, and there may be even fewer in the future. Secondly, one can ask whether "consolidated places" are good frameworks for health, social life and welfare. Similarity in moral norms and culture also means, to a certain degree, intolerance towards differences. One could argue that the definition above has more to do with the "ghetto" than i.e. the vision of a multicultural society, which stands out as an ideal for most Norwegian politicians.

One question worth asking is whether there are mechanisms that make it possible to imagine a local community, in the meaning of a locality including social life, based on the fact that there are few common experiences among people? Can there be a capacity for solving common problems in places unlike the consolidated locality described above? What is the reason that we sometimes can observe a great capacity to solve problems in localities more in common with the "fragmented" place than the "consolidated" place?

One possible explanation of this paradox can be found in the theory of *social capital*. In short, this theory argues that the ability to cooperate within localities and regions is dependent on cross-cutting cleavages and social overlap in social relationships, e.g. by the way people participate in voluntary organizations.

Social capital as a theory of local communities

The word «capital» is usually associated with economic goods, money, wealth, property or means of production. Among other things, capital develops through technological improvements and more efficient ways of production. Over the last decades other concepts of capital have emerged, i.e. human capital, which is created by developing skills among individuals enabling them to act in new and better ways.

The concept of «social capital» is also a fairly new one, directed at rela-

tionships between humans, in common with the traditional concept of capital. And like financial capital, social capital is a means holding only a limited value in itself, but tending to grow when invested. All forms of capital have some common characteristics, but there are also important differences. The economic concept of capital, as used by i.e. Marx, is typically directed towards hierarchy and asymmetry, while the concept of social capital, looking at how it is applied, is more linked with words like non-hierarchy, reciprocity and egalitarianism. Still, anyone who has tried to use the concept for analytical purposes knows that a waterproof operational definition is more or less impossible to find.

Probably the most quoted definition of social capital stems from the American sociologist James Coleman. Regarded as one of the concept's founding fathers, he claims that the concept needs to be defined by its function. Social capital is not a single, but several phenomena, which include two common traits: There exists a particular social structure, and this structure is a determinant for certain ways of acting, both at an individual and at a collective level (Coleman, 1988:98).

> «Like other forms of capital, social capital is productive, making possible the achievement of certain ends that would not be attainable in its absence [...] For example, a group whose members manifest trustworthiness and place extensive trust in one another will be able to accomplish much more than a comparable group lacking that trustworthiness and trust [...] In a farming community [...] where one farmer got his hay baled by another and where farm tools are extensively borrowed and lent, the social capital allows each farmer to get his work done with less physical capital in the form of tools and equipment» (Coleman, 1990:300-321).

The virtues of social capital are said to be manifold, according to various literary sources, from enhancing economic growth and prosperity (Fukuyama, 1995) to «making democracy work» (Putnam, 1993) and providing health benefits (Putnam, 2000; Restrepo, 2000; Ziersch et.al 2005).

One possible reason for the confusing state regarding the lack of consistency of definitions could be that «social capital» was developed as a metaphor. As with most metaphors, at first glance it is loaded with meaning and explanatory power, but loses potency when confronted with a demand for a measurable definition. One attempt to clarify the meaning splits the concept into two versions: "closed" social capital and "open" social capital.

Coleman's version of social capital can be interpreted as a closed version. He argues that the theory of social capital is placed in a methodological position between norm-ruled behaviour on the one hand and the rational theory of individual behaviour on the other (1988:95). This starting point carries him to three forms of social capital: (1) *Obligations, expectations and trustworthiness of structures, (2) Information channels* and (3) *Norms and effective sanctions*.

These forms of social capital are developing within well-defined and closed networks. There seems to be a short distance from Coleman's definition to communitarian ideas concerning local communities (Etzioni, 1995). Both the communitarian theory and the closed version of social capital presuppose, more or less implicitly, a well-defined, common set of values and norms.

While there is a connection between the closed version of social capital and the communitarian perspective, the open version of social capital in many ways provides an opposite to the communitarian perspective. While the communitarian perspective pays attention to the common set of values and norms, diversity, variety and pluralism characterize the open version of social capital. As opposed to the closed version, the open version means that social capital is a fleeting, changeable and unlimited phenomenon.

Because Putnam (1993, 2000) does not dwell on the theory of social capital, there is doubt as to whether he advocates the closed or the open version. Social capital is defined as a trust-based capacity for solving problems:

> *"By "social capital", I mean features of social life – networks. Norms and trust – that enable participants to act together more effectively to pursue shared objectives" (Putnam, 1995:20; 1993:167)*

In a later work, however, Putnam makes a clear distinction between *bridging* and *bonding* social capital, which in my view appear to be equivalent to the distinction between "closed" and "open". Putnam argues that some forms of social capital are "inward looking and tend to reinforce exclusive identities and homogeneous groups", while *"other networks are outward looking and encompass people across diverse social cleavages"* (Putnam, 2000:22).

Several authors have written about phenomena resembling what others call social capital, without using that particular name, one of which is Granovetter whose work «The strength of weak ties» (1973) undoubtedly represents an open version of social capital (Ringholm and Røiseland, 2001). In Granovetter's view, we cannot a priori state that strong ties are more ef-

fective for problem-solving than weak ties. This argument is also implicit in Tocqueville's study of American localities in 1840 (Tocqueville, 2000). Many have interpreted his observations and analysis as a theory of social capital (Aarsæther, Nyseth and Røiseland, 2002).

In the following, I will argue in favour of the open version of social capital, and derive the theory by looking back to Tocqueville's study of American daily life more than 160 years ago.

If we take Tocqueville's theory of democracy as a starting point, which can be perceived as a forerunner to the "open" theory of social capital, the voluntary organizational life is of major importance in explaining the formation of social capital (Tocqueville, 2000). Tocqueville's theory can be reduced into five observations:

1. People seem to form voluntary organizations in order to achieve common results/goals, which they are unable to realize as individuals.
2. Voluntary organizations are, as opposed to organizations in a market, based on some democratic principles, i.e. the norm of equal power to every member, norms of low threshold for new members and formal procedures for decision-making and representation and leadership. Through participation, members are trained in cooperation and democratic procedures and management of conflicts.
3. In societies with a wide variety of voluntary organizations, people seem to be member of several, different organizations parallel in time.
4. Overlap in membership means that individuals relate to different groups of persons and organizations, since different organizations organize different groups of people.
5. In a rather paradoxical way, overlap in membership increases the flow of information and the capacity for creativity and problem-solving at a society level.

This mixture of loyalties at individual level aggregates up to crossing and complex cleavages, which in turn will reduce the level of conflicts at society level. In such a context, negotiations and reciprocal adaptations will become the normal way to solve conflicts (Aarsæther, Nyseth and Røiseland, 2002, Wollebæk and Selle, 2003:71).

This rather abstract argument can be exemplified through a very concrete example: think of a football team. The team is an arena for training in the art of football, formally on a pitch, but possibly also informally off the football pitch. One can easily imagine that there will be different people in the team, i.e. some may be deeply religious, some not, some are academics;

some belong to the working class, etc. etc. These are important differences in most other settings, but in this specific case, they are toned down in favour of the art of football.

The processes observed by Tocqueville took place in American towns in the first half of the 19th century. How do we know that this theory is transferable to our societies? The differences are more striking than the similarities when we compare our present societies with those Tocqueville studied a long time ago. People in our times are more mobile and more globally oriented, and they definitely have a lesser chance of experiencing overlapping memberships within a small geographical area. On the other hand, we still live our lives more or less linked to local places, and we can observe, at least in Scandinavia, that a large part of voluntary organizational life, including new kind of activities, still connect to local places and local communities. The formation of social capital is still a process that to a certain extent takes place within delimited geographical regions or places.

In other words, the theory of social capital can help us understand the processes that turn local places into communities, and in addition the theory has the potential of establishing a new way of thinking about local communities in an era of diversity and globalization.

After the Mexico-conference: Political implications

Using the concept of "Health Promotion", the international health authorities argue that power should be given to individuals and communities, enabling them to control themselves and their environment. An important part of this political strategy seems to be the creation or restoring of communities linked to physical places, and the enabling of communities to solve common problems relevant to local people's health. However, the argument above indicates that this is not an easy task. On a continuum from *variable* to *constant*, local communities seem to have more in common with the constant than the variable. This does not mean, however, that local communities, or lack of community, should be taken for granted by public authorities. But it means that changing local communities is a long-term and complex process. Therefore, there may be good reasons to redefine how we think of local communities.

An alternative theoretical strategy for health promotion, derived from the theory of social capital, is based on the fact that most local places do not seem to have communitarian characteristics. People move in and out, there are a number of different occupational categories, different age groups are mixed together, faith and beliefs vary and ethnical backgrounds differ.

Only a minor share of the population is deeply concerned with local community work. The main part of the population is occupied with jobs, family, leisure activities, children's leisure activities etc.

One can ask how collective actions at community level can grow out of such a society. Here we touch an important argument in the theory of social capital, discussed implicitly above, namely that collective actions at the local community level are minor products of actions at an individual level. The ability to cope with common problems, which can be said to be at the core of social capital, is established when every individual is less concerned with the collective level, and more concerned with themselves. We can imagine that every single individual, based on personal needs and interests, participate in a number of (leisure-) activities in their neighbourhood. This can be i.e. voluntary organizations, activities related to the local school, a sports club, meeting other individuals at the local pub or café, doing their shopping in the local store, etc. etc. If the pattern of this participation is organized in such a way that individuals relate to different individuals in different activities, their social circle will consist of a number of different individuals. If this is typical for individuals in a given locality, there will also be a large and very complicated network of people, even in small places. Such networks are the foundation of social capital.

This implies that voluntary activities and voluntary organizations play several roles and have several effects. One obvious role is the instrumental. Most activities and organizations do have an aim, i.e. to become a successful football team or to help people suffering from AIDS. But apart from this, we also find at least two minor effects. Firstly, we know that social activities and voluntary organizations are good for health as they prevent social loneliness, provide self-confirmation to their members and also a platform for enlightenment and information. Secondly, they create social capital, which in turn represents a resource for a whole population.

This reasoning has a number of practical implications for national authorities as well as regional and local. In a more indirect way, public authorities do have great influence on the creation of social capital and local communities. To some extent, public authorities create the structural framework for civic life through legislation and financial support. In most countries there is a "public policy for civic life", although this is not very visible in the public domain. Public policy for civic life can be formed in different ways, and founded on different principles. The argumentation put forward in this paper can be transferred into guidelines for national authorities when they form this policy. Very simplified, we can formulate some of them like this:

1. *Activities and participation mean more than formal membership!* It is fairly irrelevant whether people participate as formal members in traditional voluntary organizations, or whether they participate in a more ad hoc manner. What is important for the creation of social capital is some kind of commitment beyond family and friends.
2. *New forms of common, social activities are just as important as traditional voluntary organizations!* We know for sure that the level of activity in traditional voluntary organizations has decreased over a period of time. We are not quite sure to what degree and in what way this has been replaced by other forms for voluntary activity. But we are able to state that, for the creation of social capital, all kinds of voluntary activity are of importance.
3. *The content is not important!* Unless we are talking about activities involving health hazard, any form of voluntary activity will promote health, and provide a potential for social capital.
4. *Its more important that individuals spread their energy on a number of activities, rather than work hard on one single activity!* During the period after Second World War, there has been a concentration of voluntary activity. More people seem to engage in just one single voluntary activity, which is not so supportive to the creation of social capital.
5. *For the government, it's more important to secure diversity and variation in activities rather than support a few large organizations!* Public financial support should be organized in such a way that diversity and variation is maximized.

If one compares these principles with the actual and relevant policies in a given country, one would probably find that there is a gap. Public policies in most western countries are probably not as supportive to social capital creation at the local community level as they should be. In my view, this is where the national implementation process after the "Mexico-conference" should start, by mapping public authorities' contribution to social capital creation, and thereafter establishes a clear public policy for civic life. In a long term perspective, this would mean turning the constant of local communities into a variable.

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Øivind Larsen

Aerial photographs in the assessment of physical and social change

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Summary

Changes in the social set-up of geographical areas often take place at a rapid pace. However, as this process usually is continuous, but on the other hand is not synchronized for the different parts of an area, the over all development going on is not that appalling when observed from day to day. This may lead to a certain underestimation of the extent of change and render a misleading impression of the society as a stable environment. Aerial photographs taken at intervals may visualize changes better than maps because of their larger yield of relevant information. Taking a 1992 photograph from the central parts of Oslo as an example, the author shows how profound changes have taken place in almost all neighbourhoods covered by the picture during the period 1992-2005. Among the consequences of such changes for public health work is the fact that longitudinal studies of physical health determinants like noise, air pollution etc., and of social determinants like in demography, employment etc. linked to a geographical area will have limited value, if the ever ongoing changes are not properly considered at the stage of interpretation. For the same reasons methodological limitations also adhere to the use of data from cross-sectional studies if they have been carried through some time ago.

Introduction

Arguments in public health work are often based on epidemiological studies of different kinds.

These may be longitudinal, so that the same objects of study are monitored over time. If the object of interest is linked to a geographical area, information of interest may be worked up by registration of noise, air pollution, automobile traffic etc. However, if longitudinal studies have human beings as their objects, the individuals have to be followed even if the dy-

namics of migration make them move to another area during the period of study.

Studies may also be cross-sectional, giving a picture of the situation just at the time when the research is performed. When data from, say, cross-sectional health surveys are combined with collected data on physical and social environment, positive or negative correlations may be established, but conclusions as to causality are seldom allowed. One of the main reasons for this is that health effects as a rule need time to manifest, and during this time both exposure and individuals at risk may have changed.

Despite the difficulties, appropriate methods for the assessment of health risks and causations in limited geographical areas, like in the part of a city or in a rural municipality are necessary, because the mechanisms going on may be more complicated to grasp and the findings more tricky to interpret than on a larger scale (1).

When looking around in a built-up area or enjoying the view of a landscape, you will often perceive the environment as something stable. If you stay away for a year or more, and then come back, you will be astonished that so many changes have taken place even in a relatively short time. Of importance for your private sphere is that shops you were familiar with have been replaced by others, the café at the corner is not there anymore, a factory has been converted into apartments, a previously open field has been filled with buildings etc. However, because major changes are not going on at the same time in all parts of an area, and because the developments are stepwise, the over-all process is not that visible and striking for those who are present every day. On the other hand, as a rule physical and social changes including demographic processes are linked together, and gradually the geographical area may convert itself into more or less a new society. The changes probably are even more important to the public sphere than to you. And to the epidemiologist and the social scientist, in this new situation old data lose in validity, at least as basis for practical public health work.

Even if statistics and maps, as a rule readily available in the planning departments of Norwegian municipalities, give good information on the changes, aerial photographs may be a useful supplement. Pictures taken from above add to the information in maps and statistical material because they also provide the same visual impressions which e.g. meet the person who has been away for a while, and may strike the mind in the same way and be useful for getting new ideas and new insights in public health work.

Material and methods

For Norway, aerial photographs of different kinds and with different dating are available in local archives and in the planning or geodata departments of municipalities. A private company, Fjellanger Widerøe Foto AS , offers aerial photographs of the whole of Norway, holds own archives back to 1935 and has taken over the archives of several other photographic firms. Vertical photogrammetric shots are used for mapping purposes etc., but for the assessment of changes in environment, oblique shots are often better, because they correspond to the way the world is perceived by the human eye. Both types are usually available.

When in an airplane, it is not difficult to the geographically interested or public health committed person to make the photographs herself or himself and catch just the shots of interest. A camera with a high quality lens is needed, and for analogue pictures a fine grain film should be selected. Colour material will often be best suited, but by using black and white film and an orange filter disturbing haze may be reduced, although details in green may appear too dark. Spring is the best time of the year, because by then there are not too many leaves on the trees. The aircraft should have a clear window, but minor faults may be compensated by setting the camera at a large aperture.

In this paper, a photograph taken by the author over central Oslo on May 3, 1992 is presented. The shot was made with a Leica camera equipped with a 50 mm Leitz Summilux 1,4 lens on Fuji HG 100 negative colour film. The picture here is about half of the negative frame. The negative digital scan at 1600 dpi was converted to black and white for printing purposes.

Comparison of photographs taken at different times is interesting, but not always necessary to analyse what has happened, e.g. in the built-up area on the picture for the 13 year period 1992-2005. The 2005 situation can be assessed by ground observation. However, if changes between two years back in time should be compared, a double set of pictures must be used.

Results

(The four letters A-D and the numbers 1-3 on the margins points to sections of the picture.)

Section A1:
Physical changes: In "Gamlebyen" the noisy and polluting thoroughfare highway has been removed. The freight terminal has been closed down and replaced by a park.
Social changes: Housing areas have been upgraded.

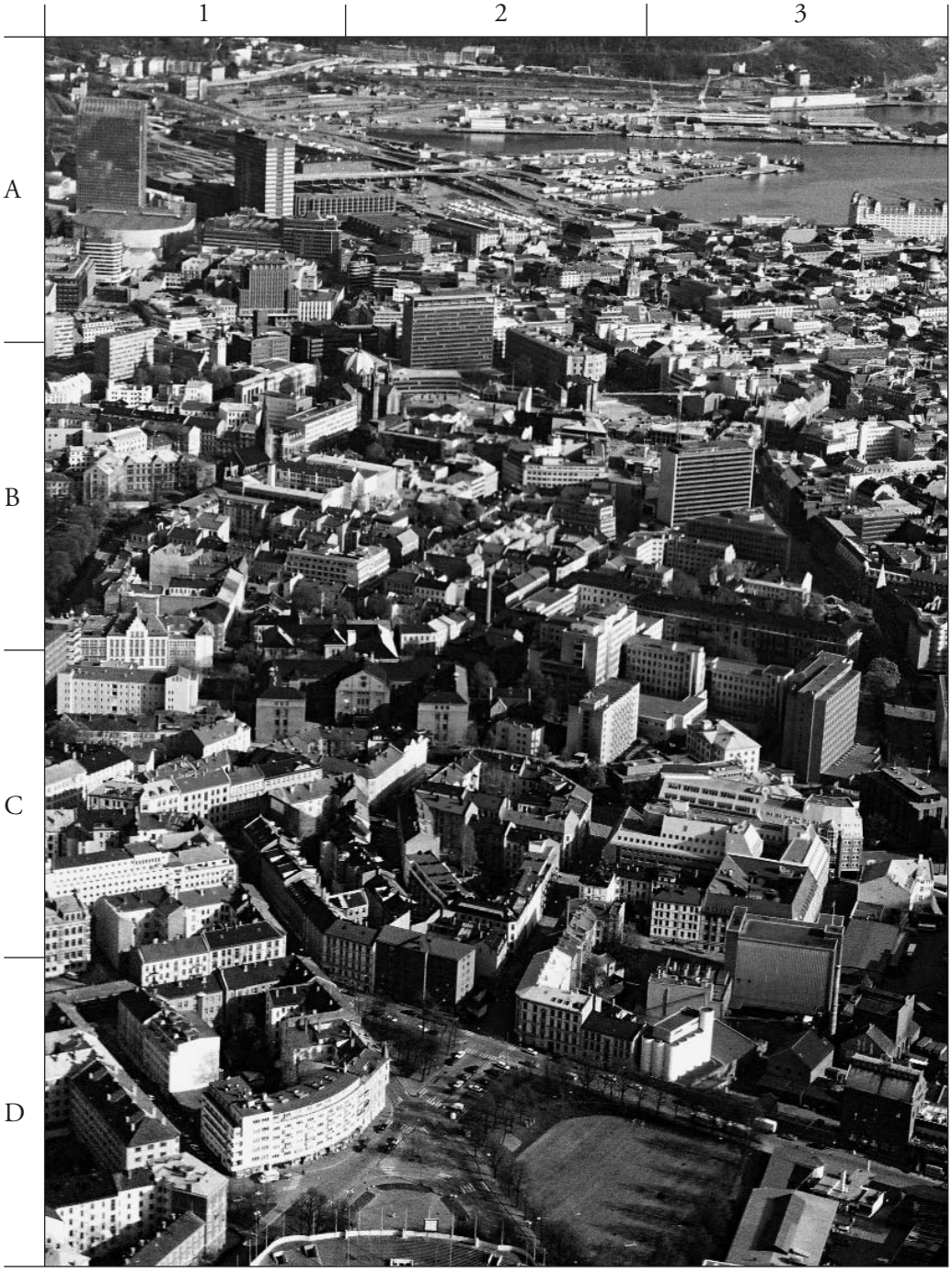
Section A2:
Physical changes: Parts of the harbour and railway area have been converted into the so called "Medieval Park". A large hotel and a large office building has been erected southwest of the main railway station, and the opera building is under construction.
Social changes: The "Plata" gathering point for drug abusers and drug dealers has been cleared up. A lot of new workplaces have been introduced.

Section A3:
Physical changes: The old "Kvadraturen" part of the city has been upgraded with new museums and hotels, and apartments replace gradually some of the offices.
Social changes: This previous "dead" part of the city after working hours has become somewhat friendlier. However, still "sex workers" and their customers are found in some of the streets.

Section B1:
Physical changes: The previously decayed housing area "Meyerløkka" from the end of the 19th century has been upgraded to present day standards.
Social changes: Changes are following the conversion from low standard dwellings to attractive apartments.

Section B2:
Physical changes: "Meyerløkka", see above. Down right in this section is a part of the old National Hospital "Rikshospitalet" which has been converted into a large upmarket housing area. In the upper right corner of the section can be seen that the "Henrik Ibsen" office buildings are under construction.
Social changes: "Meyerløkka", see above. A large amount of workplaces in the "Rikshospitalet" have been moved away; on the other hand large numbers of new inhabitants are moving into the new apartments. Many new workplaces are found in the new office buildings.

Section B3:
Physical changes: The previous head quarter of the Telenor telecommunication company has been rebuilt, expanded and taken over by the Directorate of health and social affairs. The previous building of the Oslo city health authorities now belongs to the University of Oslo and is filled up with law students. The old building for the medical departments of the "Rikshospitalet" has been demolished and replaced by apartment blocks.



Central Oslo 1992 (Photo Ø. Larsen, file # 1320-24A 030592)

Social changes: Changes in the composition of the working population, and changes from a hospital and working area to a living area.

Section C1:
Physical changes: Up left can be seen the paediatric hospital, which has been torn down and replaced by a housing complex. Down left is a previous school, for long used as an office building, now converted and expanded to an apartment block. There have been few changes in the old housing area in the middle, apart from maintenance and upgrading.
Social changes: More inhabitants.

Section C2:
Physical changes: Up left the previous maternity clinic. This is by 2005 under conversion to a specialist clinic and offices for medical administration etc. Up right a large apartment block for nurses. This has been demolished and is under replacement by a new apartment block for the high-end market. Few changes are seen in the old-Berlin-style housing area from around 1890 in the middle, apart from maintenance and upgrading.
Social changes:: Still not so many.

Section C3:
Physical changes: In the upper part of the section can be seen parts of the "Rikshospitalet", partly converted into living areas, but with the large pathology block still empty in 2005. In the lower part of this section is a part of the large Frydenlund Brewery, established 1859, now mostly demolished or rebuilt and taken over by the Oslo University College.
Social changes: Brewery employees have been replaced by students, and a working area has been converted to an academic campus.

Section D1:
Physical changes: Almost no changes.
Social changes: No significant changes.

Section D2:
Physical changes: Down left a part of the old Bislet sports arena, which in 2004-2005 is totally rebuilt. The park in the middle is by 2005 under rearrangement.
Social changes: No significant changes.

Section D3:
Physical changes: In the upper part of the section lies part of the former Frydenlund Brewery. The left part of the property has been rebuilt into a dense housing area with high standard flats. The buildings to the right are rebuilt for the Oslo University College. Lower part of the section: Service and shopping buildings, in decay in 1992 and still so in 2005.
Social changes: Many students and new inhabitants.

Discussion

By means of analysing a photograph like the one presented here, it can be seen that major physical and social changes have taken place in the course of a time as short as 13 years, here, however, mostly to the better. This could be taken as an exception, but is probably representative of the developments in Norway in general and in Oslo in particular during the 1990ies.

Looking at the picture may provoke many reflections. One of them is on how this district or even parts of it will function as a "place", as an environment for human life and activities. How are the conditions for geographical identification, for social cohesion and stability? A striking trait for the part of Oslo shown on the picture, is that a transformation of large parts of it into dense housing areas has been going on (especially in B2,B3,C2,C3,D3), and in other parts large scale rebuilding attracts new inhabitants (B1,B2). But still there are only one primary school on the picture, the private school of Saint Sunniva (B1) and one secondary school, the Oslo Cathedral School (B2). There are two churches, the Dome (A2) and the Trinity Church (B2), in addition to the Swedish church and the catholic church of Saint Olav (B1).

Natural arenas for social encounters are still scarce, and so are places for children to play. Although such facilities may be found outside the picture frames, the area inside the picture nevertheless is quite large, in fact larger than many a Norwegian regional city. Will the market driven construction of living areas risk to produce only a sort of transit places for people on the move in their housing career, leaving e.g. local networking as no issue of interest to the dwellers? Has the necessity for integration of functions and structures been sufficiently considered in the planning process?

When it comes to data available for analysis in the case of the example: If one should want to use statistical information, data on health parameters, on physical conditions etc. from the 1970-ies, 1980-ies or even the 1990-ies for the planning of public health activities in the region, it is quite

clear that by 2005 the area contains another society, and that the relevance for the present situation for may data has to be questioned. This pertains to cross-sectional studies of environment and populations, but also to longitudinal studies, where the situation for noise, pollution etc. has become another and where the composition of the population working and living here has become different, if humans are object of study.

Epidemiology may easily become involuntary medical history if the rapid changes are not taken into consideration.

Conclusion

Of course photographs cannot replace other means of documentation, but they make changes very visible. Aerial photographs, especially taken at an oblique angle, may have special qualities as a basis for reflection, because they display the objects in a way which is in part familiar to the human eye, but at the same time gives a survey and puts the photographed objects into their geographical and social context. In the field of public health, aerial photographs may supplement the background data and stimulate ideas for interpretation of existing information, and for setting up new studies or implementing new public health ventures. The practical use of aerial photographs in public health work for studies of societal changes is therefore recommended.

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The role of Norwegian nurses in the fight against tuberculosis 1912–1940

Michael 2005; 2: 277–90.

Summary:

The fight against tuberculosis was an important task for both authorities and humanitarian organisations. Many Norwegian nurses were involved in this work. Studies of the journal "Sykepleien" in the period between 1912 and 1940 show that nurses were responsible for important contributions, both as homecare nurses and in the institutions. The work they performed was often both lonely and challenging. It was important to the nurses to gain competence in their work. And they had great interest to learn about scientific research in the area, particularly about the work done at Ullevål Hospital, where the nurses had been involved in quite a particular way when the BCG- vaccine was introduced in Norway.

Background

In the time between the first and the second world wars tuberculosis was an important cause of death in Norway. Although the death rate began to fall after 1925, as many as 12% of the deaths in Norway were caused by this disease in the period between 1925 and 1935. The fight against tuberculosis was not over before the fifties. Then the death rate was reduced to only 2%, mainly because of social development, increasing general welfare, vaccination and specific therapy (1).

During the 400 year anniversary of the Norwegian public health services in 2003 many people looked back at "the glorious fight" against tuberculosis in Norway. They spoke about the contribution of the Health Authorities, the doctors and of the contributions by humanitarian organisations such as Norske Kvinners Sanitetsforening and Nasjonalforeningen for folkehelsen. These two organisations were founded about 100 years ago. They made a particularly strong effort to fight tuberculosis

in the first part of the twentieth century. Historical studies, however, indicate that they were in constant competition for donations and had many disagreements about which organisations were to be credited for the positive results of the work (3, 4). Few spoke about contributions by nurses in the fight against tuberculosis, but many nurses were highly devoted to this task and some of them even were employed by these organisations.

The first formal education for nurses in Norway started in 1868. During the following 60 years, there were no public regulations regarding nurses' education. Such guidelines did not appear until 1948.

In the years around 1900 many hospitals and organisations realized the necessity of offering formal education to women in preventing illnesses and in nursing the sick. Education for nurses was therefore based on the needs of the organisations or the hospitals. It was easy to attract students. When the nurses had finished their education, they were obliged to work wherever the organisation or the hospital needed them.

The results coming out of this system were that nurses had different types of education, employers and areas of work. Usually they identified themselves with the institution where they were educated. A nurse educated by the Red Cross, as an example, entitled herself Red Cross Nurse (4, 5, 6).

When Norsk Sykepleierforbund (Norwegian Nurses Association) was founded in 1912 this organisation included all nurses regardless of their title. The organization attracted many members in a relatively short time. It had its own periodical "Sykepleien" (the Norwegian word for "nursing") which published 11 yearly issues. The first editor was the powerful founder and leader of Norsk Sykepleieforbund Bergljot Larsson (1883-1968) (7). The journal presented many articles about the organisation's activities, but also brought papers discussing the special nursing needs for patients with different diseases. However, it is important to have in mind that this journal was not intended to be a medical or scientific journal, a fact which is important when searching for pure medical information on its pages. Nevertheless, the periodical "Sykepleien" is an interesting historical record as to the standardization of professional knowledge offered to a numerous group of nurses.

Material and methods

A systematic search for articles about tuberculosis in the magazine "Sykepleien" from 1912 through 1940 was performed. I looked for:

– What the nurses did to inform their colleagues about their care experience nursing patients with tuberculosis.

– What they did to prevent the disease in different fields.
– What the doctors and others told the nurses to do, and what they told about nurses' participation in this effort.

The search resulted in 24 relevant articles which in one or another way were answering these questions. First of all this indicates that tuberculosis was an important topic in the period studied. The articles concentrated mainly on nursing practice, competence and scientific research.

Nursing practice

Through their magazine, nurses were in many different ways encouraged to fight tuberculosis and its consequences. Important lectures were printed as articles. An example of this is the lecture: "Directions in the fight against tuberculosis", given by the doctor Johan Fredrik Bratt (1900 – 1957) at the General Meeting in 1931. The speaker started with dramatic words like these (in translation): "This giant among diseases destroys the society in a slow, persistent duel. This fight is taking place all over the civilized world. In our small country alone, millions of Norwegian kroner are sacrificed, and thousands of people are at all times involved in the fight". And he continued: "The well trained, scrupulous nurses are the hard core of the army in the fight against the White Plague. Remove these nurses and the fight will be hopeless" (8). The doctor was obviously inspired by his audience of several hundred nurses.

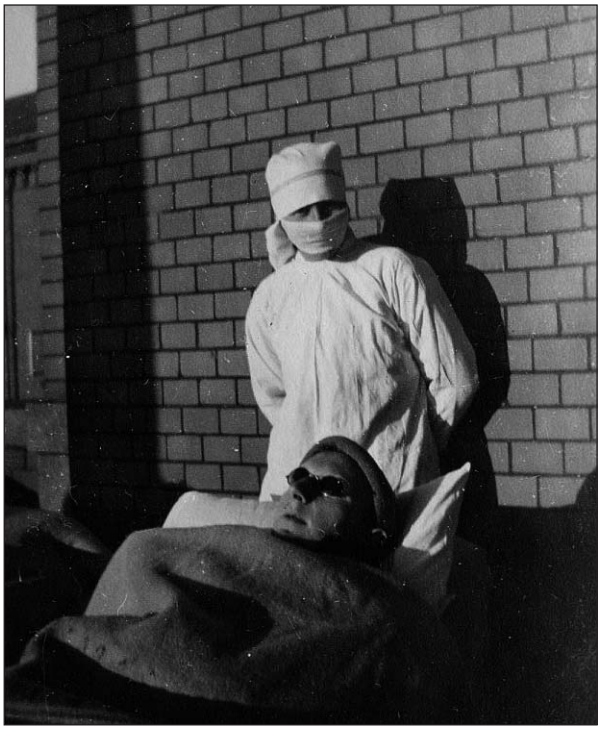
In their daily jobs the nurses faced the infected patients both in the institutions and by home care nursing.

Home care nursing

Visiting people with tuberculosis in their homes was the responsibility of nurses mainly employed at local health stations. During visits in the homes the nurse "has to try to be the friend and adviser of the sick person, and not an inspector on behalf of the society. Force is an inferior measure in the fight against tuberculosis" an article told its readers (9).

Some places the nurses created a file and filled in a report on the family members after their first visit. The file followed the patient and the family until the patient was either dead or cured. The nurses made an effort to follow up on the children and to monitor them throughout their childhood. Based on the nurses' reports the doctors decided what kind of treatment was needed for the patient and the family. In this way the nurses' surveys and reports were of major importance to the doctors, who in fact seemed quite dependent upon the work done during home visiting by nurses (9).

The health of children was a major concern to the nurses. (Private photo ca. 1925)



Correct sun-bathing and air treatment were important. (Private photo ca. 1918)

If necessary the nurses encouraged the infected people living at home to accept hospitalisation for treatment. To succeed in these tasks the nurses needed to show tactfulness, insight in human nature and patience. (9)

While the sick family member was away, the nurse was responsible to organise the home in a way that reduced the risk of a further infection. First, the family was to be trained in hygiene procedures. Secondly, the home was to be thoroughly cleaned. If cleaning help was used, the nurse was supposed to supervise the work. Quite often, however, the work had to be done by the nurse herself. Thirdly, after hospitalisation of a patient, the nurses were responsible for investigating the social situation of the patients and their need for further economic support. This was before the days of social workers and shows the variety of responsibilities for the nurses in the inter-war years.

The number of nurses employed to take action in the homes of the patients varied between different municipalities and places. As early as 1919 in Oslo, the capital of Norway, there was seven nurses who exclusively worked with home visits to recently infected patients. In addition, 15 nurses were supervising the people that not only had been infected for a long time, but were poor as well, and who received public social support. These nurses were characteristically named "nurses for poor people" (9).

Smaller places had fewer resources for this line of work, as compared to Oslo; in the city of Narvik only one nurse was employed. She did home nursing on behalf of the health station, and she was the matron of the tuberculosis nursing home of the city. (10) Many other nurses in Norway faced a similar lonely work situation. This created a need to discuss mutual problems with others. One possibility was to use the journal for debates. The debate on the proper way of how to wash the dishes is an illustration of what they needed to talk to other about. Dish washing might seem like a minor issue for discussion today, but how to boil plates and silverware correctly was an essential task in combating infectious diseases. It was particularly important where many people were fed during parties and in public dance halls. In this perspective, the debate was highly necessary. (11)

Nursing in hospitals and nursing homes

There was a general agreement that a nurse, wherever she worked, had to be responsible for two areas: To help the patient and to prevent the spread of infection. This was particularly important when she nursed the seriously ill patients with tuberculosis. The work was demanding and challenging. A letter to the editor in 1914, however, shows a note of optimism (in translation): "Dear Editor, We have worked with the infected patients for three months, and it is an encouraging work. In this short time we have 14 pa-

tients showing improvement. A healthy appearance, combined with a fresh skin colour have really changed the patients. They have gained about a pound a week. This is an important work to continue. When I am not busy with the house, kitchen and cooking, I must therefore use as much time as possible to be in the therapy centre. My experience is that the patients spend the time provided in the right position in their chairs to please the nurse, rather than for the benefit of their own lungs" (12.)

In its own way, this letter brings forward three important subjects focused upon by the nurses: Body weight, treatment by rest, and activities.

The increased weight of a patient confirmed one main issue. It provided a visual result of successful nursing. The increased weight of a patient came as a result of the right diet. Consequently, the nurse had to give high priority to the activities in the kitchen and at the table. The patients were usually weighed every week. Increased weight was particularly satisfactory for the owners of the institution. A report from a nurse of increased weight for the patients was a proof that the money provided by the organization gave good results. In addition, in reports of voluntary, local organisations working for the benefit of people infected with tuberculosis, one can register the pride in the fact that the organization had provided the means for buying a scale for a nurse (13.)

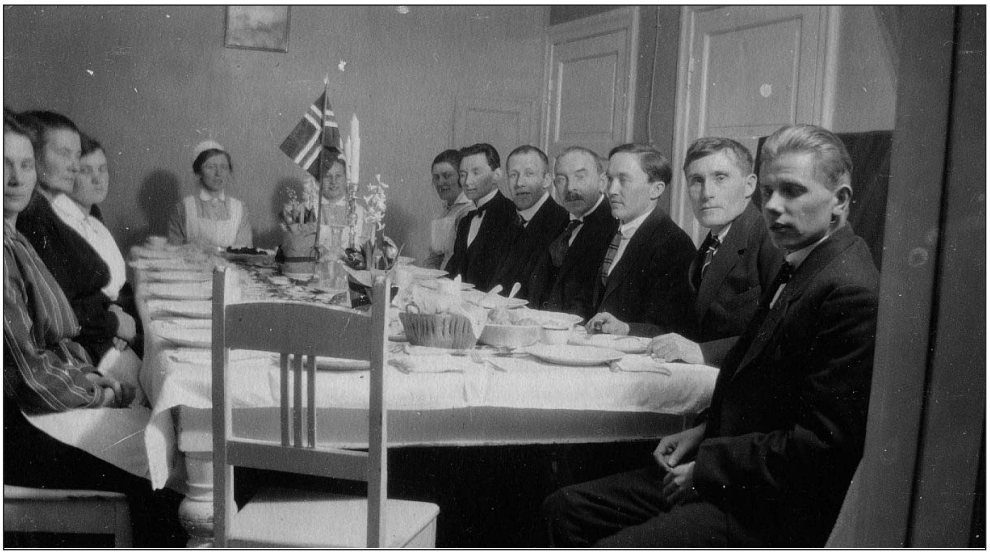
Daily nursing activities besides working with the patients' diet were rarely described in "Sykepleien". Maybe it was not considered a proper issue to discuss with colleagues. The tasks were matters of routine and therefore descriptions of how to clean the spittoons, or other repulsive tasks necessary for good hygiene are not given. On the other hand, the elderly nurses of today can tell tales of when they, as young students, e.g. spent long hours lying down in the therapy centre with sick children. They were supposed to lie totally still, portraying good examples for the children. Working conditions are described in a short note in the journal, in which five nurses expressed their enthusiasm over the fact that a new sanatorium built for children had electric lights, bathroom, and water closet (14).

The need for activities for the patients has been thoroughly described in more articles in "Sykepleien". "If they had something meaningful to be interested in, we might have been spared from all the improper flirtation", a nurse complained (in translation), and she suggested the establishing of separate institutions for men and women to solve this problem (15).

Other suggestions included gathering the patients for games, and reading aloud in the evenings, as well as offering lectures on useful topics like hygiene and diet.

Several contributions discuss the importance of ergotherapy. The nurse should explain to the patients that work and exercise in fact could improve

Christmas celebration in a tuberculosis nursing home. (Private photo ca. 1924)



The nurse had to take part in the patients' meals. (Private photo ca. 1924)

their condition. It should not be considered dangerous to use the body even when seriously sick with tuberculosis. Staff members had to explain to the patients that this therapy was to their own benefit, not because their activities were useful for the institution. If the sick could clean herself or himself and make the bed with some help, it was claimed to be a satisfaction for both body and soul. Only the fatally ill patients were allowed total rest. (16) One nurse tells her colleagues a touching story about how a patient, on his own initiative, gradually built up his own body through exercise, and thereby overcame the disease. Totally cured he could return home to his wife and small children (16). With descriptions like these the nurses encouraged each other to stimulate the patients to be active.

"Sykepleien" brought many articles which show nurses with a great involvement and creativity, trying to find good activities for the patients. Two of them from 1939, presented by a French-Norwegian nurse, Marcella Fuglesang, is worth mentioning. Her experience was to be the first social nurse at Champcueil, a public sanatorium for nearly 600 men with tuberculosis 50 km outside of Paris. Nurse Fuglesang had a special task - to create a surrounding where the patients were less inclined to leave and thereby get more out of their stay. Many of the patients had had social problems before arriving at the sanatorium. Some were immigrants from other parts of Europe or North-Africa. Because of that, her first activity was to offer the patients who did not master French a language course. Teachers were found among the other patients.

There was always someone who had special and useful skills they could teach to the other patients. A sailor, who had spent time in the docks of New York, was her first English teacher. Later she found others that were better qualified. Courses like in stenography, book-binding, and gardening were offered to patients who were interested. Those with cultural interests started both an orchestra and a theatre group. The chief physician, who initially had objections against hiring a social nurse, become enthusiastic and supported her work (17). The author herself seems to eradiate her enthusiasm out to her surroundings. Even more important, she must have offered great inspiration to her colleagues in finding new and meaningful activities for the patients.

To develop competence

The communicating of knowledge was an important aim in the fight against infectious diseases. An article from 1914 emphasises that this was a task for the educated nurses. The nurses had experience from theory and practice in treating infectious diseases. The nurses had to be prepared to

The fight against tuberculosis challenged the nurses in many ways. Here from a summer holiday camp for children with tuberculous parents. (Private photo ca. 1925)

A class of new nurses from a nursing school belonging to Norske Kvinners Sanitetsforening. (Private photo ca. 1920)

meet patients with tuberculosis everywhere. In the psychiatric hospitals as many as 10% of the patients could be infected and the male staff in such hospitals often were negligent in their hygienic protocol (18). Even though the article does not discuss this matter any further, other sources show that the nurses in the psychiatric institutions were mainly uneducated men (4). Therefore this article may be understood as a recommendation from the trade union to employ educated female nurses at the psychiatric institutions. Only one institution in Norway educated male nurses in the interwar years, and this was not sufficient to cover the need for educated personnel in psychiatry and other medical areas (19, 20, 21).

The quality of the education for nurses was a major concern for the leaders of Norsk Sykepleierforbund in this period and they demanded a three year curriculum for nursing students. The students were to have 30 theoretical lectures about hygiene in general and 30 lectures about epidemic diseases, with emphasis on tuberculosis. In addition they should spend three to four months in general epidemic wards or in wards for tuberculosis.

Consequently, we learn that these topics covered a major part of a curriculum approved by the organisation. Unless the nurse had an education approved by Norsk Sykepleierforbund, membership was not granted, and without a membership it could be hard to find work as a nurse. In this way the union had an important influence on nursing education at that time (4).

It is not surprising that the organisation of nurses emphasized the importance of knowledge of the epidemic diseases which were a major health problem in those days. Bergljot Larsson, the nursing leader, had carried out postgraduate studies in nursing of people with epidemic diseases in Scotland in 1910 (7). The board of the organization offered several scholarships to nurses who studied the subject abroad.

Standard nursing knowledge was important. However, managing skills were also particularly important if the nurses were to be leaders of an institution.

The patients with tuberculosis were treated in separate institutions. The intention was to accommodate patients undergoing treatment, and with a positive prognosis, in special wards in the hospitals or in sanatoriums. (22) The sanatoriums were often big, had beautiful surroundings and were owned by humanitarian organisations. On the other hand, small nursing homes were located throughout the country, and were often owned by someone who did not have much money to invest in them. Many of the patients placed in those homes were incurable and needed help and much nursing. Several articles in the journal in the years 1915 through 1925 dealt with the life of nurses in these homes. The articles show that the institutions

were understaffed. The matron could be the only educated nurse. People in general were afraid of catching the disease, and were reluctant to seek work at such institutions. The few nurses present were under a heavy pressure.

The nurses themselves described their situation as one of isolation and loneliness both socially and when performing their duties. Small institutions did not employ doctors on a permanent basis, and in rural areas the doctor might also be unavailable when a nurse needed medical advice and support. The social isolation had two reasons. It was a result of the lack of time for recreation, and that the locals feared the contagion and avoided contact with the people working in these institutions. When the nurse had limited funding and was responsible for the economy of the institution she had an additional worry. "It is not easy to celebrate a merry Christmas", wrote one nurse (in translation) "when I as a matron only have very little in the petty cash box and I am constantly worried about unknown expenses" (23).

Given experiences like these, it is not surprising that it was hard to recruit nurses for the jobs. One action taken to attract new nurses was to make a special education for matrons of small institutions. At first it was offered a short course of three weeks, which did not attract many applicants. However, when courses were structured over 11 weeks and given at well-known sanatoriums, the initiative became much appreciated. Sometimes applicants had to wait more than a year for a place in such programmes.

The problem with too few trained nurses who wanted to work in nursing homes faded away in the 1930's.The improved education was an obvious reason for attracting nurses to work at such places. Another reason was the mass unemployment in these years which also affected nurses (4).

Interests in scientific research

Scientific research performed by nurses is mainly a modern phenomenon in Norway. In the inter-war years only few people associated science with the work done by nurses. Therefore, it was the doctors who presented scientific research in "Sykepleien" in the period covered by this study.

E.g. a long article claimed that it had been scientifically proven that sunbathing was an effective remedy against tuberculosis. The patient was recommended to spend one hour in the sun every day most of the year. It would be of most benefit to the patient if the nurse arranged that the patient could lie totally naked in the sun. Tanning was considered as an advantage, wrote doctor W. Holmboe (1876-1949). No other reasons were given to the readers (24). With belated wisdom one can criticize the lack of documentation for the treatment. This was, however, at a time when

From a big sanatorium around 1917. (Private photo)

The staff of a small nursing home for patients with tuberculosis ca. 1930. (Private photo)

nurses never were taught to question the statement of a doctor.
In contrast, some articles were different. Examples are papers by dr. Johannes Heimbeck (1892-1976) at Ullevål Hospital in Oslo. He wrote about where tuberculosis occurred and how it spread within the population, and pointed to the connection between housing quality and the disease. His works also presented the dispersion of tuberculosis in the different age groups and the extent of exposure to youths when they started working. It indicated that the young ones starting to work in the hospitals had a high risk of catching tuberculosis, as compared to others (25). He also presented in two articles his work about introducing the BCG vaccine in Norway. Reading his articles was especially interesting for nurses, because the doctor's research was mainly based on systematic studies of the nursing students at Ullevål Hospital in Oslo. Here, at the biggest Norwegian nursing school of the time, one hundred students were admitted annually. The students came from different places and social groups in the country. They were therefore considered to be a representative sample of the population. Doctor Heimbeck and some other physicians had had access to all their files, health records, etc. In this way the nurses´ dormitory became a scientific laboratory for the doctors.

When performing the first tests with the BCG vaccine, the test group was composed of two civilians and three nurses who all volunteered to the experiments. Dr. Heimbeck told that these nurses got both diarrhoea and other nervous ailments because of their knowledge when waiting for the successful test result (26). Dr. Heimbeck expressed special thanks to the powerful superintendent of Ullevål Hospital, Andrea Arntzen. She had supported the doctors` work from day one (27). Obviously she had a special understanding of the value of the doctor's works. As the leader of the nursing school, she had had to expel students because many of them contracted tuberculosis. However, the fatal accidents with BCG vaccine in Allgemeines Krankenhaus in Lübeck in 1930 was never mentioned in "Sykepleien". (28) The knowledge of the vaccination seems only to have encouraged the nurses.

Commitment and creativity

It became important to the nurses to take part in the work against tuberculosis. To meet the challenges various solutions were chosen. One nurse told her colleagues that she had bought herself a motorbike. It enabled her to visit more schools than before, when she was using an ordinary bike. (29) This nurse using her motorbike is one of many proofs for the creativity and involvement nurses have shown in the fight against tuberculosis.

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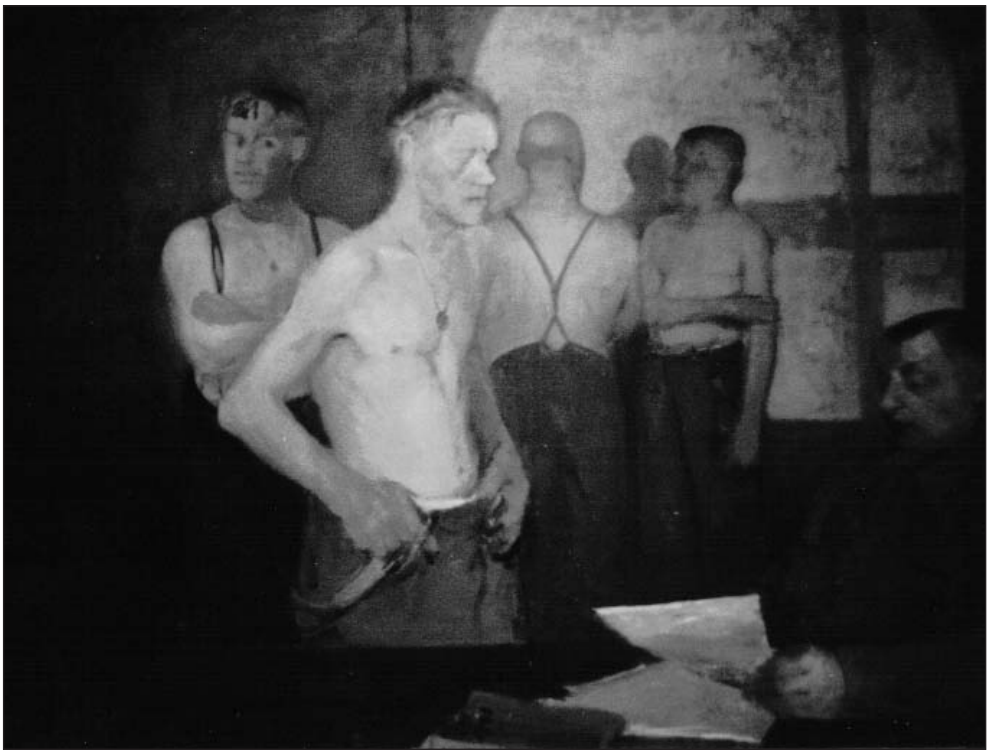
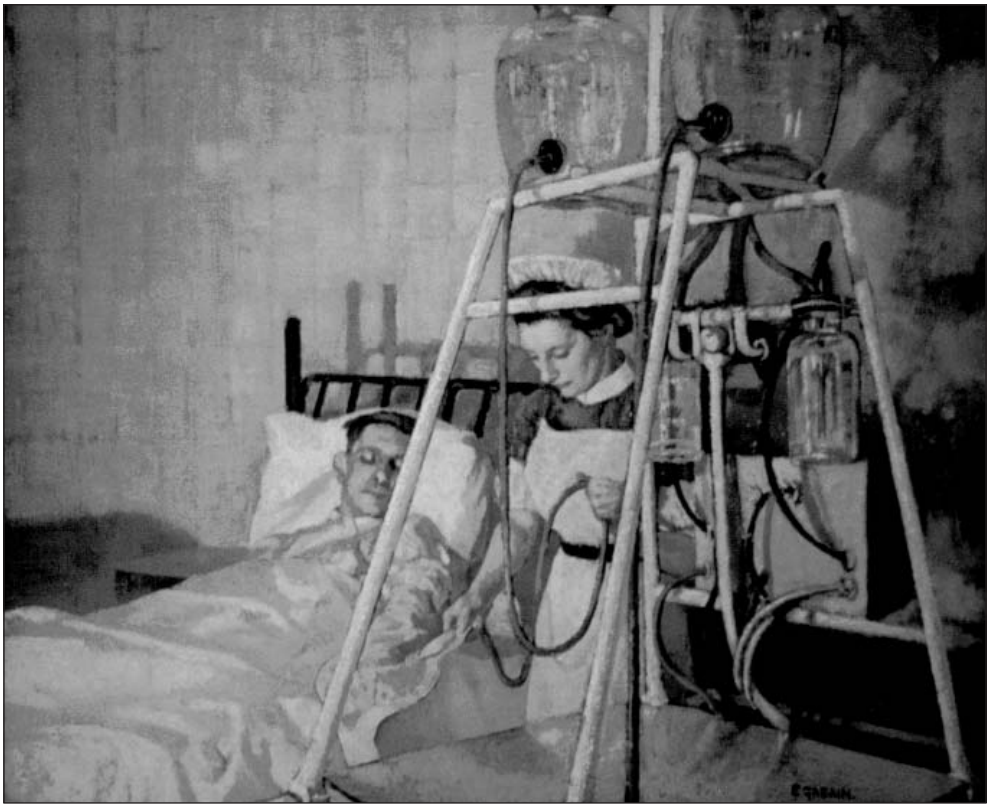
Military medicine in paintings (1)



Rodrigo Moynihan RA CBE (1910–1990): "Medical Inspection 1943".
(Oil on canvas. Imperial War Museum, London. Photo: Ø. Larsen 1999.)

Military medicine in paintings (2)



Ethel Gabain (1882–1950): "A Bunyan-Stannard Irrigation Envelope for the Treatment of Burns". (Undated. Oil on canvas. Imperial War Museum, London. Photo: Ø. Larsen 1999.)

Michael

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