

Annual Report 2007

Umeå International School of Public Health
Epidemiology and Public Health Sciences

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Front cover: Master of Public Health students 2006/2007
Back cover PhD students 2007

Foreword

In November 2007, Epidemiology and Public Health Sciences celebrated its 20th anniversary. The 2006 Annual Report summarized 20 successful years of epidemiology and public health education, training and research. We were all convinced that this was as good as it could be, however, the successful trend from the first 20 years seems to be persisting: In April 2007 our unit received its largest research grant ever when the Swedish Council for Working Life and Social Research (FAS) announced its decision to award 55 million SEK over the coming decade to our application "Public Health meeting Globalisation: changing epidemiological patterns make new demands locally and internationally". At the inauguration, a proud Vice Chancellor Göran Sandberg expressed with delight the importance and the impact of global health research for both the research community and the university.

The grant was made possible thanks to creative and persistent work involving the vast majority of our staff. This funding has of course turned lots of our ordinary planning upside down. Before the grant, it was clear that nobody employed in our unit had time to twiddle their thumbs. But afterwards we soon realized that success can also be quite demanding, bringing with it its own challenges. All of a sudden we had to reconsider our plans and start to develop and implement the proposed research plans we had previously only dreamt of. So 2007 became a challenging year in a most creative way. The Centre for Global Health Research is presented in more detail on page 23.

2007 was also the year when Umeå International School of Public Health launched an extended, two year Master of Public Health program. The number of masters student admitted to our program was an all time high, meaning that the year has been both inspiring and challenging for our teachers and our administrative personnel. Nevertheless, thanks to our committed staff, the masters program has been able to successfully fulfill its goals.

This Annual Report aims to summarize the main activities in our unit during the last year. It describes current research and highlights some major achievements. The research activities are presented along three main problem areas: etiology, social epidemiology and evaluative research. Most of the research projects are part of international or national collaborations and are crossing, not only the boundaries of the three research areas, but also other boundaries. They are often multidisciplinary and originated within different occupational areas, research paradigms, cultures and contexts. Accordingly, it is not easy to apply just one label to each of the numerous ongoing research projects in our unit, since most of them could have many. Each of the research projects are presented in chapter 3.

During 2007 Margareta Norberg, Lars Hagberg and Lars Jerdén defended their PhD-theses. Lars Jerdén was the 50th student to have defended a PhD thesis in our unit since 1987, and 36 PhD-students were still working on their theses at the end of the year.

International collaboration is an artery in our work. Thanks to all research partners in a large numbers of universities around the world our unit has been able to develop and participate in many innovative research collaborations. Thanks to these collaborations many international students have been encouraged to come to Umeå for public health training or research. We foresee even more global research collaborations during the coming years.

In September, Professor Stig Wall resigned from being head of our unit. After 20 years of intense work as both scientific and administrative "boss" he decided to reduce his work load and focus on his main interest: global health research. Stig Wall's achievements are outstanding. Within his research area he is a respected celebrity. His international network is extensive and his role for developing research collaborations and links between South and North as well as between South and South will impact global health research for many years to come. We were all pleased when Stig Wall accepted responsibility as leader of the Centre for Global Health Research and we look forward to many more years of research collaboration.

Lars Weinehall, Head of Division
Urban Janlert, Deputy Head of Division

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PhD events during 2007



Margareta Norberg



Lars Hagberg



Lars Jerdén

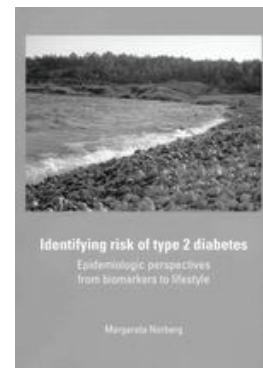
Margareta Norberg

Identifying risk of type 2 diabetes. Epidemiologic perspectives from biomarkers to lifestyle

Supervisors: Lars Weinehall, Jan Eriksson, Christer Andersson, Bernt Lindahl

Thesis defended: 12 January, 2007

Opponent: Professor Mai-Lis Hellénus, Centrum för Allmänmedicin, Karolinska Institutet, Huddinge



Type 2 diabetes is a significant health problem because of its high prevalence and strong association with cardiovascular morbidity and mortality. An increase of type 2 diabetes is predicted due to increasing obesity and sedentary lifestyle habits. The development from latent to diagnostic disease spans many years and during this time it is possible to prevent or postpone type 2 diabetes using lifestyle and pharmacological interventions.

The objective of this thesis is to investigate and describe early patterns and risk indicators of type 2 diabetes. The focus is on type 2 diabetes as one component in metabolic syndrome, i.e. the clustering of several cardiovascular risk markers.

Two studies based on the Västerbotten Intervention Programme (VIP) provided the data; one case-referent study nested within VIP which includes 237 diabetes cases that were clinically diagnosed 5.4 years after the health survey, each with two referents; and one panel study with 5 consecutive annual cohorts including subjects that participated in VIP between 1990 and 1994 and returned to a follow-up after 10 years, a total of 16 492 individuals. Associations between risk markers and type 2 diabetes or metabolic syndrome are evaluated by several statistical techniques. A model of metabolic syndrome is hypothesized.

A prediction model for developing type 2 diabetes among middle-aged individuals is proposed, where high risk is defined as having at least two out of three risk criteria (fasting plasma glucose ≥ 6.1 mmol/L, HbA1c $\geq 4.7\%$ (Swedish Mono-S standard) and BMI ≥ 27 in men and BMI ≥ 30 in women). With positive predictive values of 32% in men and 46% in women, this model performs at least as well as other published prediction models. Information on family history of diabetes does not improve the result and the cumbersome oral glucose tolerance test is not needed. Therefore this model should be feasible for use in routine care.

A model of metabolic syndrome with five composite factors, based on 14 variables including markers produced by adipose tissue and β -cells, suggest that obesity with insulin resistance and β -cell decompensation are the core perturbations in the early stages of type 2 diabetes, while inflammation and dyslipidemia could not be shown to be independent early risk indicators. The composite factors do not improve the prediction as compared to the single markers of fasting glucose, BMI and proinsulin and, possibly blood pressure values.

Stress (measured as passive or tense working conditions) and weak social support (measured as emotional support), are suggested to be strong risk indicators along with high BMI for type 2 diabetes in women. In men BMI is predictive, but the stress variables are not shown to be associated with future type 2 diabetes. A social gap is indicated by double risk of metabolic syndrome among subjects with low (≤ 9 years at school) compared to high education (≥ 13 years). High consumption of Swedish smokeless tobacco, snuff (>4 cans/week), is independently associated with metabolic syndrome, obesity and hypertriglyceridemia, but not with dysregulation of glucose.

To conclude, single markers, that are commonly used in daily practice, are useful and sufficient for identification of subjects that are in the early stages of type 2 diabetes. Obesity with insulin resistance and β -cell decompensation are the core perturbations in early development to T2DM. Lifestyle, socioeconomic and psychosocial markers, in addition to biomarkers, are important determinants of future type 2 diabetes and metabolic syndrome, albeit not similarly among men and women.

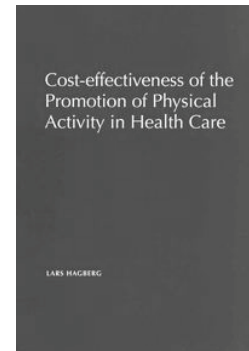
Lars Hagberg

Cost-effectiveness of the promotion of physical activity in health care

Supervisors: Lars Lindholm, Mai-Lis Hellenius

Thesis defended: 28 February, 2007

Opponent: Ass prof Lars-Åke Levin, Department of Health and Society, Linköping University



Introduction: Physical inactivity is a major cause of reduced quality of life, as well as many common diseases and even premature death. Most people, globally, are scarcely or rarely physically active. Consequently, physical inactivity influences the burden of disease, and increases its societal costs. In view of this, it is necessary to ask how health care should respond when the population and the patients are either inactive or rarely physically active. Cost-effectiveness analyses of the promotion of physical activity in health care can contribute substantially to health care policy.

Aims: The overall aim of this thesis was to investigate the cost-effectiveness of physical activity promotion in the health care system. The specific aims were: (I) to provide a model for analyzing cost-effectiveness and equity in health for community-promoted physical activity, (II) to review current knowledge about the cost-effectiveness of health care based interventions aimed at improving physical activity, (III) to evaluate the cost effectiveness of physical activity promotion as a treatment method in primary health care, (IV) to illustrate the importance of enjoyment of exercise in interventions aimed at promoting physical activity, and (V) to describe a method of valuing the time spent on exercise.

Methods: Standard methods for economic evaluation were studied and adapted to create a model for the evaluation of physical activity promotion (I). Relevant databases were searched for published articles, and the articles found were analyzed using this economic evaluation model (II). A trial in primary health care was evaluated in a cost-utility analysis based on the model (III). In the same trial, the association between time spent on exercise and enjoyment of exercise was analyzed (IV). A model for valuing the time spent on exercise was developed based on existing approaches to the valuation of time, and used in two different groups of exercisers; experienced and inexperienced (V).

Results: An economic evaluation model was developed, as was a model to calculate an intervention's effect on equity in health (I). In total, 26 articles were found regarding the cost-effectiveness of physical activity promotion in health care, and 20 of these described interventions, which the authors considered to be cost-effective (II). The treatment of patients in primary health care by the promotion of physical activity was shown to be cost-effective (III). For the same group of patients, time spent on exercise was associated with enjoyment of exercise (IV). A model for valuing the time spent on exercise was developed and used. Time costs were significantly higher among inexperienced exercisers (V).

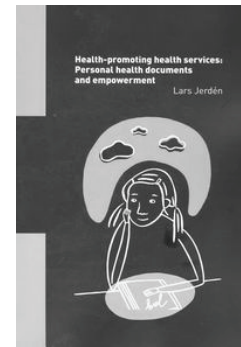
Conclusions: There are many examples of interventions promoting physical activity that may be regarded as cost-effective. In general, it seems to be cost effective to promote physical activity among patients with increased risk, or who manifest poor health associated with physical inactivity. Unfortunately, there is still little evidence of when physical activity should be used, or what the best design of such an intervention might be. Although there is still a need for stronger evidence, the Swedish health care system should use the promotion of physical activity as a standard method among the following patients:

- those who manifest increased risk (such as high blood pressure) of ill health due to a physically inactive lifestyle;
- frail older people, especially those with increased risk of fall injuries;
- those requiring rehabilitation after heart failure.

Lars Jerdén

Health-promoting health services: Personal health documents and empowerment

Supervisors: Lars Weinehall, Erik Bergström, Gunilla Burell
Thesis defended: 23 November, 2007
Opponent: Professor Charli Eriksson, Institutionen för
hälsovetenskap, Örebro universitet, Örebro



In 2003, the Swedish Parliament adopted a national public health policy that included the domain - “A more health-promoting health service”. Strategies and tools are needed in the work to reorient health services. Personal health documents are documents concerning a person’s health, and are owned by the individual. Several studies that have evaluated such documents indicate that they could be of interest in health-promotion work. However, there is insufficient knowledge concerning personal health documents that target adolescents, and little is known about the feasibility of such documents in a Swedish cultural context. The concept of empowerment is gaining increased interest for health services, but the associations between empowerment, self-rated health and health behaviour are sparsely studied.

The overall aim of the thesis is to explore a strategy - empowerment - and a tool - personal health documents - that might facilitate the work of the public health goal of a health-promoting health service. Specific aims are to examine the feasibility of using personal health documents in health promotion; to examine professionals’ experiences of working with health promotion and personal health documents; to examine the association between personal health documents and self-reported health behaviour change; and to examine the perception of empowerment in relation to self-rated health and health behaviour among adolescents.

Two personal health documents that targeted adults and adolescents were developed and evaluated. Distribution to adults in different settings was compared in a cross-sectional study (n = 1 306). Adolescents received the document in school, and surveys were performed at baseline and after one year (n = 339). Practical use and attitudes by document owners were studied by questionnaires. Teachers (n = 69) answered a questionnaire, and community health nurses were interviewed (n = 12). The interviews also explored nurses’ experiences of working with health promotion in general, and were analysed by qualitative methodology. Adolescents’ empowerment was examined by a questionnaire (n = 1 046).

Most participants reported reading in the documents; writing in the documents varied between 16% (distribution in occupational health) and 87% (adolescents). The health document was perceived as useful by 35% of the adolescents. Factors significantly related to personal usefulness were being born outside Sweden, experiencing fair treatment by teachers, being a non-smoker and having a positive school experience. Community health nurses were striving for a balance of being a doer of practical, disease-oriented tasks and a health-promotion communicator. The structural organisation in health care centres was important for their work with health promotion and the health document. Teachers were generally in favour of continued work with the document. In different settings, between 10% and 26% of adults reported changes in their health situations as a result of reading the booklet. Self-reported changes in health situations were less likely using postal distribution, and there were no significant differences between the other types of distribution. Adolescents with low empowerment scores reported poorer self-rated health and more risk-taking behaviours such as smoking and binge drinking.

To conclude, personal health documents are feasible to use in different settings. Health promotion in health services needs active support from leaders as well as adequate support systems. Findings suggest that personal health documents can be tools for promoting self-reported lifestyle changes among adults in different settings. There is a close relation among adolescents between low empowerment in the domain of health, low self-rated health and health behaviours such as binge drinking and smoking.

Scholarships 2007/2008

Centerpartiets Global Health Scholarship for MPH studies

Andinet Worku Alemu, Ethiopia.

Yared Woldemariam Habtewold, Ethiopia.

Ailiana Santosa, Indonesia.

Trisasi Lestari, Indonesia.

Dang The Hung, Vietnam.



The East European Committee scholarship for MPH studies

Irina Popova, Russia.

Irina Pecheykina, Russia.

The Swedish Institute scholarship for MPH studies

Nurul Kodriati, Indonesia.

The Västerbotten County Council Scholarship for PhD studies

Njazing Barnabas, Cameroon

Centerpartiets Global Health Scholarship for PhD students

Isabel Goicolea, Ecuador

Leonie Dapi Nzeffa, Cameroon

Ari Probandari, Indonesia

Firdy Permana, Indonesia

Elli Nur Hayati, Indonesia

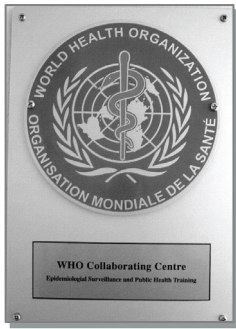
Zainonisa Petersen, South Africa

Hailemariam Lemma Reda, Ethiopia

Fatwa Sari Tetra Dewi, Indonesia



WHO Collaborating Centre



Since October 2003 we have been designated as a WHO Collaborating Centre for “Epidemiological Surveillance and Public Health Training”.

The overall objectives are to develop and implement, in collaboration with WHO, epidemiological surveillance specifically of non-communicable diseases, to support capacity building in developing countries and to promote and collaborate with member countries on surveillance and operational research needed to enhance the effectiveness of disease prevention and surveillance.

Terms of reference include:

- To conduct International Public Health Research Programmes for policy development
- To conduct an International Public Health Training Programme in epidemiology and field research methods
- To collaborate with WHO on the development of policy documents and guidelines for surveillance
- To provide guidance and recommendations, in collaboration with WHO, to developing countries undertaking the WHO STEPwise approach to noncommunicable disease risk factor surveillance
- To collaborate with WHO on the development and evaluation of methods for field surveillance in epidemiological field laboratories in low-income countries
- To collaborate with WHO on the lessons from the MONICA Project (with particular emphasis on Stroke).
- To promote, in collaboration with WHO, the INDEPTH Network (International Network of field sites with continuous Demographic Evaluation of Populations and Their Health in developing countries).

Writing a thesis while enjoying life?



Being a Swedish family doctor since 1984, I have always been interested in prevention and health promotion. I have regarded quality development as an interesting and enjoyable part of my work. But after completing many developmental projects, some successful and some not so successful, I realized the need to receive some cultivation from the academic world. In 1997, I was accepted as a student at the Umeå Master of public health programme. Cautiously entering into the field of research, it turned out to be a joyful activity, too. I was struck by the positive atmosphere at the “Epi” department: friendly, supportive, multi-professional and multi-cultural. After the completion of my MPH, I wanted to proceed further, and was accepted as a PhD student. A generous scholarship from my County Council

permitted me to do research half time. After six years, I managed to defend my thesis in November 2007 (“Health-promoting health services: Personal health documents and empowerment”). Actually, it was the 50th thesis defended at the department. Based on my personal experience, I can strongly recommend others to follow the same track. The supervision provided at “Epi” combines clever guidance and advice with respect for the PhD student. And the first impression of the atmosphere at the department turned out to be right. It is a true example of a creative environment. I want to thank everybody for hospitality and support during these years. So, it seems possible to complete your PhD exam while enjoying life. Why not give it a try?

Lars Jerdén, PhD

Views from a Swedish MPH student



A few years back when I was trying to decide what to do with my life my mother said to me that I should study public health. At the time I just laughed. I hardly knew what public health was! Today I am a master student, in public health at Umeå University, and planning my master thesis. Who would have thought that four years ago. I wonder who is laughing now!

Going from the department of political science, and a bachelor in International Crisis and Conflict Management, to epidemiology and public health has sometimes been difficult. It is all new to me. All the people involved in the masters program have really made this, my first year in the program easier. They are always there to help, no matter what. I wish that more Swedes would apply to this master program, they don't know what they are

missing. Each day in school is a new adventure, you never know what's going to happen, and we have a lot of fun together.

One of the things that I really like is the fact that my classmates are from all over the world and they all have different cultural and academic background. For me, as one of the three Swedes in the program, it is almost like being on exchange. I have the chance to get to know 23 different countries and cultures, pretty much in my own backyard. It is a great experience and they have taught me so many things. And the best part is that I have made so many new friends during this first year. Hopefully friends that I will stay in touch with for the rest of my life.

Soon there will be a new class of MPH students arriving in Umeå. I can only hope that their first year in the program will be as pleasant as mine has been.

Erika Wiklund

MPH student from Sweden

Views from an international MPH student



Before I came to Umea I worked with an NGO in Ethiopia, mostly on reproductive health and HIV/AIDS programs. I had a chance to conduct a number of follow up visits where I observed lots of obstacles in programme implementation across the country. Most importantly, I learned that poor design in implementation, small follow up, poor quality of services and improper staffing were found to be very serious problems. This motivated me to join an

international school of public health and have an idea of what is happening in other parts of the world and share the experiences of others in the field of public health. I joined Umea International School of Public Health because it is an international school with a good reputation. I know Ethiopian colleagues who studied here and are currently doing great work in Ethiopia. They told me that they gained a lot by joining the masters program. I consider myself lucky for being enrolled in the two-year programme and sharing the experiences of students from 21 countries. The courses are well organized and all are relevant. The teachers value the contribution of students during classroom discussion and we benefit a lot from group work, assignments and paper discussions. Some years back I was working as a general

practitioner in a district hospital in a rural part of Ethiopia. As I was mostly engaged in curing diseases, at that time health for me was about the health of individuals. Now as a would-be public health expert

I realise that the health of the community is much more important than individual health if we want to have disease free society in the

future. Now I am almost half way through the programme and I have started to feel that I am becoming capable to handle most of the problems I faced while I was working in Ethiopia. During my stay in Umea the weather has been tricky at times... damn cold, gloomy, dark..... the thing is not to fret endlessly & needlessly....I enjoyed my stay and am having a good time! Did I like the heavy snow? Yes, I really enjoyed the snow but not the darkness. I had the chance to attend some memorable events like the open house dinner with our teachers, the New Year eve celebration and fireworks in the centre of the city, the football match with the teachers at IKSU. I would like to thank the Ethiopian community in Umea who made my stay memorable and smooth (Abebe and his wife Addis, Tadesse and his sister Atsedo, Micheal and lots of others) Words can't express the sincerity and generosity of these Ethiopian folks; simply they are one of the nicest people I ever encountered in my life.

Yared Woldemariam, MPH student

1. Institutional setting

Organisation

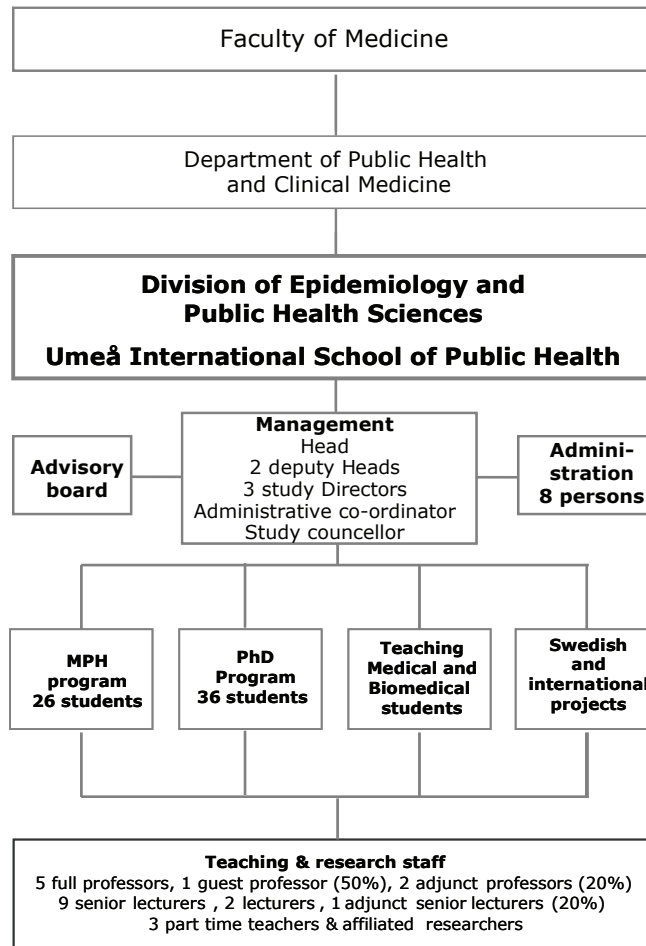


Figure 1. Organisational chart of division within department and faculty

Our division is one of six subunits within the Department of Public Health and Clinical Medicine. Subsequently all formal decisions concerning the Division are taken by the Board of the Department. The advisory board of supervisors serves to address policy and research training issues in our division, and more specifically to assess candidates for PhD training. Staff affairs are handled by the management of the division.

Some of our faculty are full time employees, others attached on a part time basis. Most of the latter group are former PhD students continuing their research and contributing as teachers and supervisors.

The informal structure in our division is represented by different groups with specific objectives. There is a group responsible for handling computer issues for employees as well as students, a Library group dealing with the acquisition of books and journals, and a group with special responsibility for the distribution of office space among employees. Furthermore a specific group is responsible for planning and organising a summer course entitled *Epidemiology and Field Research Methods*. Most issues within the Division are also discussed in a bi-weekly staff meeting.

Staff development

At present 47 research and administrative posts are attached to our division, however, not including all international and doctoral students employed or associated with other departments. Of these, 29 are women (62%). Of the 9 professors, including up-graded and adjunct, as well as affiliated professors, 1 is female. Of 14 teachers/researchers employed as senior lecturers, adjunct senior lecturers or lecturers, 8 are women. Of 23 Swedish PhD students currently registered, 13 are women and among 26 international PhD students, 11 are women. Six out of 7 administrators are women.

Of the 50 students who have completed their PhD during 1987-2007, 26 were women. Twenty-seven of these were Swedes, 14 of which were women. Of the 32 students who have finished their PhD since 2000, 18 were women.

During 2000-2007, 59 students were admitted for PhD studies, of which 29 were women. The sex distribution among all the staff members is illustrated in Figure 2 below, showing a female/male ratio of 62:38 with women in majority. However, it is a sex imbalance in certain groups, with a minority of women among professors and teachers/researchers whereas it is quite the contrary among administrators where most employees are women.

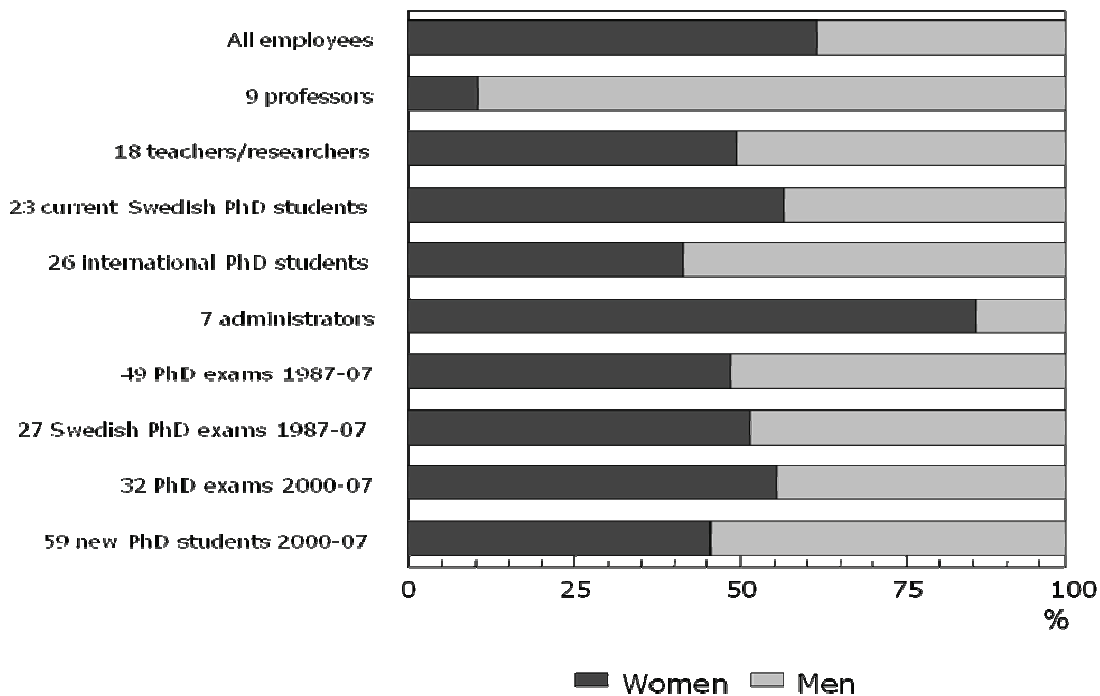


Figure 2. The sex distribution among all 47 staff members employed at or associated with our academic environment by subcategory in 2007.

In all, 49 doctoral students are registered (2007) within our research programme or receive major tutorial with us. Twenty-one of the research students' group are physicians, and the others represent a mix of sociologists, economists, social workers, dentists, environmentalists, physiotherapists and nutritionists. The 23 post-doc personnel represent many disciplines such

as environmental, paediatric, reproductive, nutritional and oral health but also medical sociology, statistics and health economics. In terms of person-months of work at the division we have reached a "steady state" corresponding to about 32 full-time staff; 22%, 37% and 41% accounted for by administrative, pre-doc and post-doc staff respectively (Figure 3).

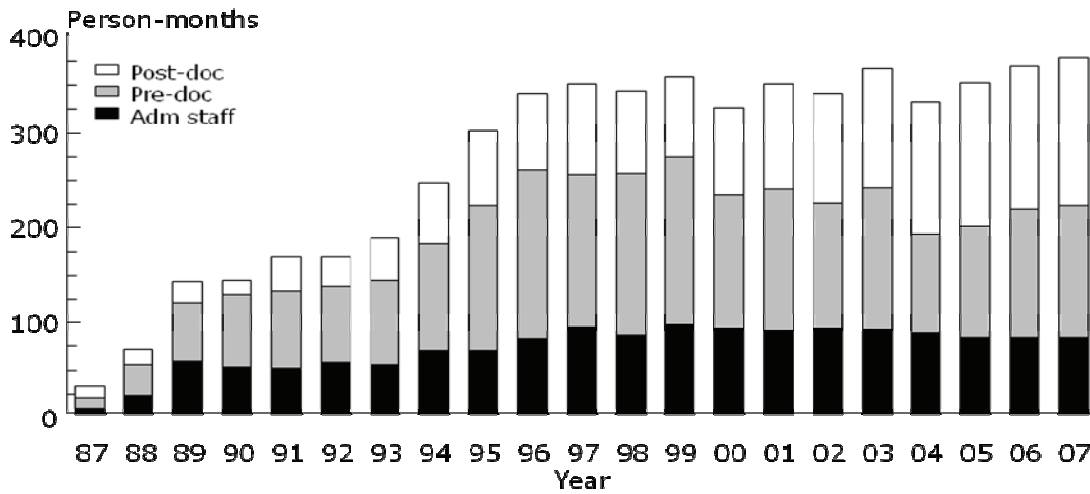


Figure 3. Development of person-months at work by staff category 1987-2007.

Budget

The total budget (Figure 4) for the year 2007 amounted to SEK 36 million, 73 % of which

consisted of external Swedish research grants or grants for bilateral development research projects (Figure 5).

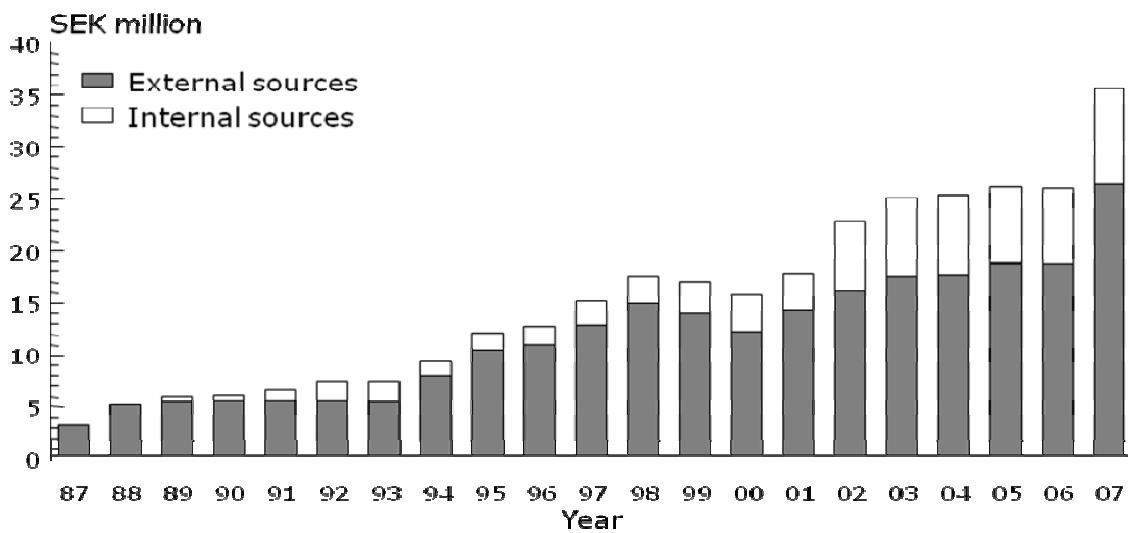


Figure 4. Development of total budget 1987-2007.

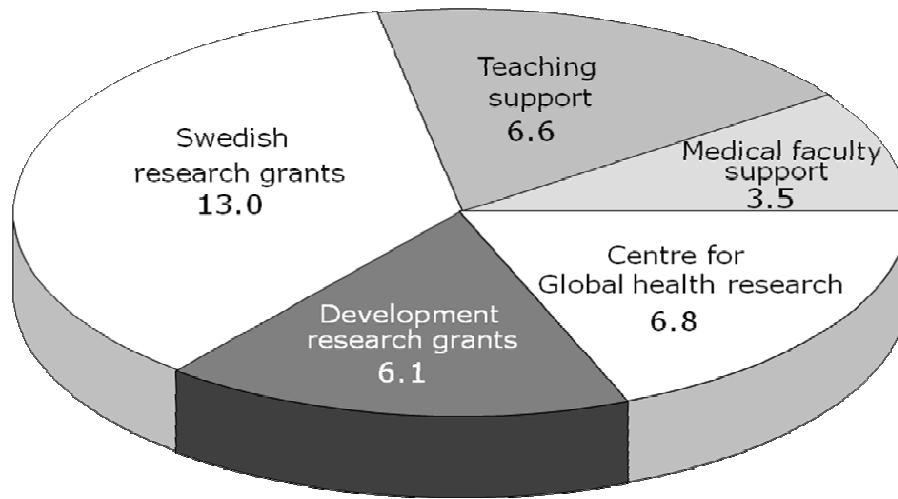


Figure 5. Financial sources for the fiscal year 2007 (in SEK millions).

During the past 10 years, we have seen an increase in core support from the faculty from the 1.5 million SEK in 1994 to the present 3.5 million. The teaching support, and the associated responsibilities, have increased from 0.6 to the present 6.6 million SEK. The latter is mainly a consequence of the expansion of the public health teaching to the complete international MPH programme and our increasing involvement in the medical undergraduate programme. The balance between Swedish and development research is presented in Figure 5. We receive long-term programme support from the FHI, National Public Health Institute and FAS, the Swedish Council for Working Life and Social Research. Other funds are supplied through project grants from Sida/SAREC, FAS, EU and the Vårdal Foundation. The project grants are further specified in Table 1.

Teaching support from the university has been granted for our Public Health programme. For the sixth year scholarships were offered by the County Council (Table 2).

The output side of the budget is shown in Figure 6 by type of expenditure. Thus, 45% is ac-

counted for by salaries and 7% by the operating budget. It should be noted that the overhead support to the university administration was SEK 3.12 million during 2007.

Progress

There are no objective measures to assess the progress of an activity. However, an ultimate and measurable outcome criterion is the number of publications (Figure 7). The ups and downs of the curve are a proxy for and a result of the process where research ideas, their gestational period, project planning, data collection and analysis ultimately, after fairly long induction periods, result in a measurable outcome such as a published paper.

As part of the budget model adopted by the Medical Faculty since 1996, three parameters are used to assess each of its departments: number of publications; number of research theses; and number of external grants awarded. Each department is given a budget, based partly on this assessment system.

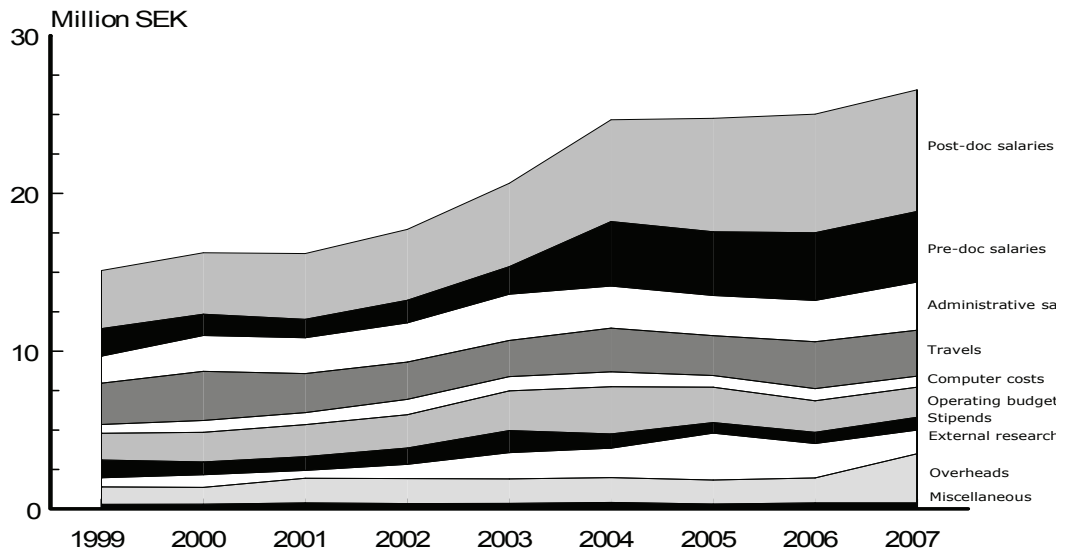


Figure 6. Budget development 1999-2007.

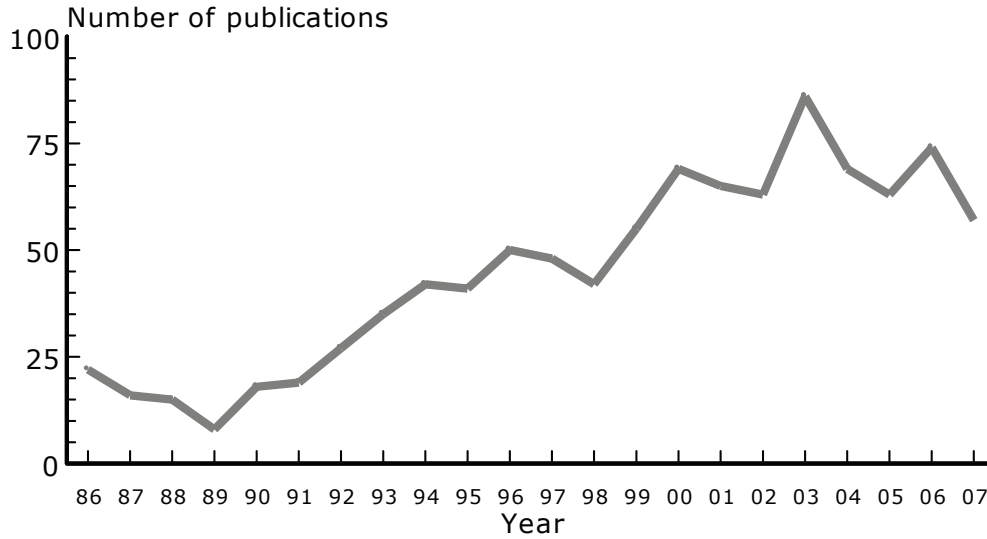


Figure 7. International publications in peer reviewed journals from our unit 1986-2007.

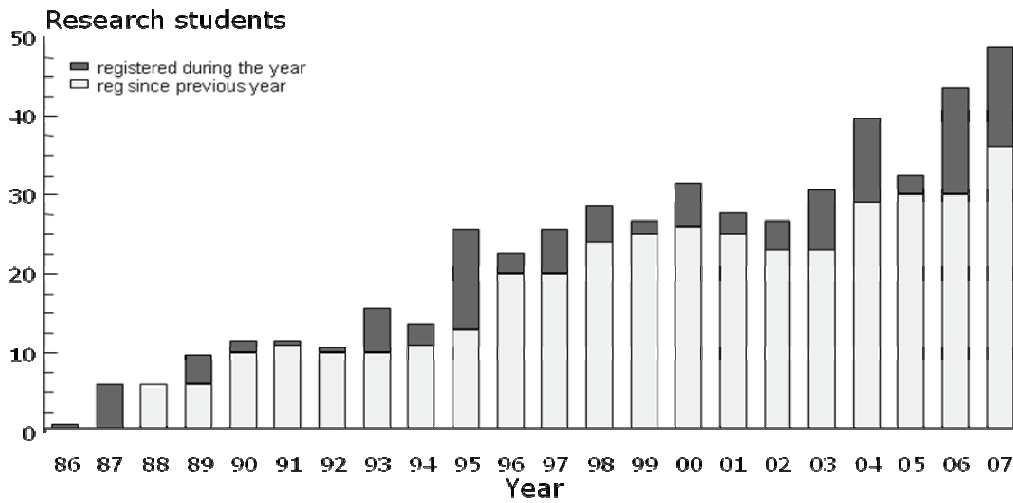


Figure 8. Research students at the division 1986-2007.

Figure 8 shows the number of research students over time, one of the parameters for the budget model assessment system. During 2007, 49 pre-doc personnel were associated with our department, 13 of which were registered during the year. A total of SEK 18 million is thus channelled to the departments as a bonus; we acquire

6.1 percent of this, ranking us number 3 of the 52 divisions of the medical faculty. Figure 9 shows the number of doctoral dissertations over the 18 years that we have existed as an independent research environment.

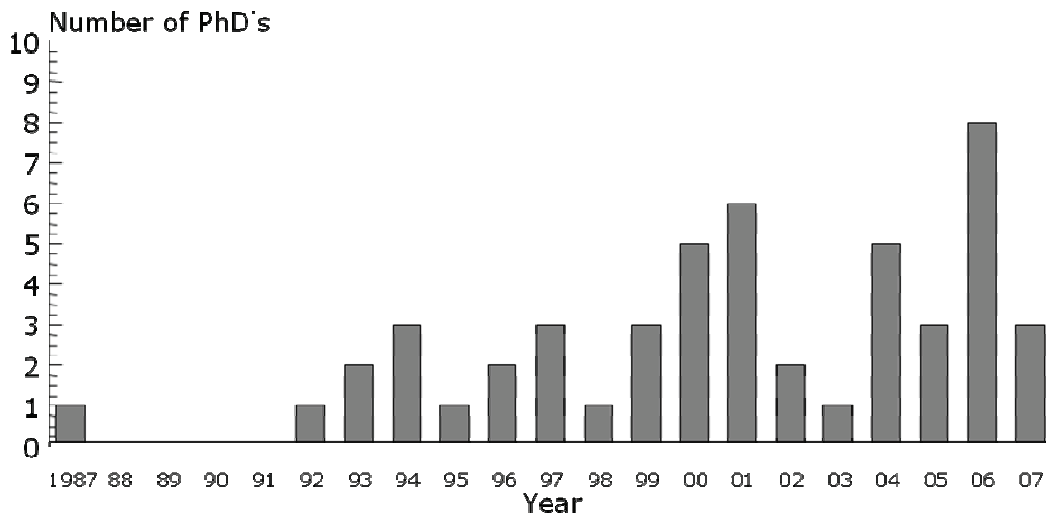


Figure 9. Doctoral dissertations 1987-2007.

Table 1. Project grants for 2007.

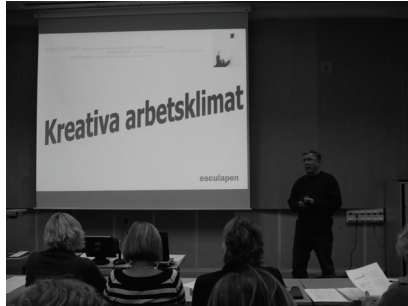
Funding source	Title of project/programme	SEK
FAS	The epidemiological transition in three developing communities in a Swedish perspective	700,000
	FAS-Centre for Global health Research	5,500,000
	Celiac disease. Has time come for primary prevention	800,000
	Scandinavian journal of Public Health (support for Editorial Board)	280,000
	Is powerlessness a risk factor for poorer health among girls?	650,000
FORMAS	Celiac disease. Has time come for primary prevention	115,150
VR	Does screening generate ill-health and increased...	525,000
	Does group interventions increase wellbeing and decrease stress among teenage girls with chronic pain?	350,000
	Celiac disease. Has time come for primary prevention	375,000
	Can the benefit of treatment for high blood pressure achieved in randomised studies also be achieved in clinical praxis?	250,000
	National Research School in Global Health	1,150,000
Sida/SAREC	Butajira health in transition study, Ethiopia	611,000
	Coordination and administration of research projects in cooperation with UNAN-Leon	350,000
	Reproductive and child health – Nicaragua	48,800
	TANSWED HIV programme in Tanzania	500,000
	Health Systems research, Vietnam	700,000
	Reproductive health in Tanzania	422,000
	Violence against women – Tanzania	731,300
	Child Caretaking of siblings in Nicaragua: a public health approach	600,000
	Research and research training in Laos	82,000
EU	PreventCD	1,816,402
	REACT	116,265
WHO	Community based deployment of Coartem with malaria rapid tests, in Tigray, Ethiopia	70,000
AFA	Preventing weight gain – a suggested shift in public health strategy	1,067,800
Centerpartiet	Support for co-operation between Swedish research departments and research departments on universities in developing countries	1,000,000
Vårdalstiftelsen	Is mass screening for celiac disease a wise use of resources?	200,000
County Council	Senior lecturer in health economics	183,600
	Senior lecturer in epidemiology	727,500
	Senior lecturer in health care	384,000
	Hälso- och sjukvårdens bidrag till en utvecklad folkhälsa – dokt lön	1,144,800
	Database for health screenings in the county of Västerbotten	342,888
	Salut	383,799
FHI	Co-operation between National Public Health Institute and Epidemiology	1,125,600
	Taylor&Francis	270,945
Miscellaneous		3,131,661
		26,705,510

Table 2. Post graduate and research training support and stipends for 2005/2006.

Funding source	Title of programme	SEK
Medical faculty	Master of Public Health Programme:	2,502,000
	- Public health, 10 points	
	- Epidemiology, 10 points	
	- Biostatistics, 10 points	
	- Medical sociology, 10 points	
	- Qualitative methods, 10 points	
	- Evaluation methods in community intervention, 5 points	
	- Nutritional epidemiology, 5 points	
	- Hälsoekonomisk utvärdering, 5 poäng (in Swedish)	
	- MPH thesis, 20 points	
	Basic support	200,000
	International summer course in Epidemiology and field research methods	136,000
	Research methodology, 5 points and Advanced biostatistics, 5 points	194,000
	Biomedicinsk grundutbildning, 5 poäng (in Swedish)	165,000
	Medical school	1,647,000
Sida	Minor Field Studies (MFS)	170,000
East-European Committee	Public Health Policy and Practice – pedagogical training and capacity building	315,000
County council	Scholarships for PhD studies	120,000
Total		5,449,000

Special events during 2007

Staff day discussing creative working environments and also marking the change of head of the division



Traditional Lucia celebration



Celebrating the new Centre of Global Health Research



Lars Weinehall inaugurates the new computer room, the Kagera room



Staff



Lars Weinehall. MD, Professor in epidemiology & family medicine and head of the unit. Research on the role of Primary Health Care in prevention and on health promotion policy research. Also attached to the Research and Developmental Unit of the County Council and to the National Public Health Institute.

Urban Janlert. MD, Professor of Public Health, specialist in Social Medicine. Deputy Head of Division. Research in social epidemiology (unemployment, social deprivation). Also at the Department of Community Medicine at the County Council.

Anna-Lena Johansson. Administrative coordinator. Responsible for departmental and staff administration and budgeting. Coordinating financial reports within the department. Also involved in the collaborative studies in Vietnam.

Erik Bergström. MD, PhD. Specialist in Paediatrics and School Health. Associate professor of epidemiology and public health. Head of the Dept of Child and Adolescent Medicine in Västerbotten County. Research on child and adolescent health. Also attached to the Department of Clinical Sciences, Paediatrics.

Peter Byass. Guest Professor in international health, with particular responsibilities for supporting the field laboratory sites in Ethiopia (Butajira) and Vietnam (Bavi), as well as some teaching in Umeå. Works mainly on the epidemiology of tropical infectious diseases and the implications for health services in developing countries, with an increasing focus on the current epidemiological transition in such circumstances. Also attached to the Impact Project at the University of Aberdeen, U.K.

Kjerstin Dahlblom. MPH. Doctoral studies on children's perspectives of sibling caretaking in León, Nicaragua, with a qualitative and quantitative approach.

Lars Dahlgren. Professor of medical sociology. Research on social planning, HIV/AIDS in Tanzania and on social norm systems. Special interest in developing qualitative research methods and sociological aspects on emotions. Also attached to the Department of Sociology.

Leonie Dapi Nzefa. Doctoral student.

Kerstin Edin. RN midwife, PhD. Main research interest on the topic of intimate partner violence with special focus on gender, sexuality and on the period of pregnancy. Currently (the academic year 2007-2008) a postdoctoral fellow at the Sociology Department, State University of New York at Stony Brook, New York

Berit Edvardsson. MD, General Practitioner. Doctoral studies on patients with symptoms related to indoor environmental factors. Also attached to Department of Family Medicine.

Anders Emmelin. Lecturer, epidemiology. Doctoral studies in air pollution epidemiology. Co-ordinator of research collaboration with the Community Health Department, Addis Ababa University in the Butajira Rural Health Project. Epidemiology teacher and director of the Master of Public Health Programme.

Maria Emmelin. PhD. Senior Lecturer, epidemiology and public health with special reference to qualitative methodology and medical sociology. Studies on self-rated health in public health evaluation, HIV/AIDS research and reproductive health. Involved in research collaborations with Tanzania, Ethiopia, Indonesia and South Africa.

Malin Eriksson. Social worker, Master of Social Science. Doctoral studies on “Social capital and health promotion – prerequisites, barriers and prospects”.

Eva Eurenus. PhD, project assistant within the Västerbotten County Council project SALUT.

Anna-Karin Hurtig. MD, PhD DTM&H, MSc. Associate professor in public health. Research areas: Infectious disease policy, environmental epidemiology and health impacts of globalisation processes.

Ulf Högberg. Professor, gynaecologist/obstetrician. Research on obstetrical epidemiology, maternal and reproductive mortality and domestic violence in Sweden and Ethiopia. Also attached to the Department of Obstetrics and Gynaecology.

Anneli Ivarsson. MD, PhD in paediatrics, Associate professor, Senior lecturer in epidemiology and public health sciences. Extensive research on celiac disease, and responsible for the National Swedish Register of children with this disease. Involved in Child Public Health research both in Sweden and internationally. Also attached to the Research and Developmental Unit of the Västerbotten County Council.

Helene Johansson. Physio-therapist. Doctoral studies on "A more health promoting health care service from the perspective of health professionals"

Karin Johansson. Programme administrator for the International School of Public Health. Guest student co-ordinator.

Ingela Krantz. MD. Adjunct professor in public health and infectious disease epidemiology. Research on female genital schistosomiasis, herpes infections and ethics in public health interventions. Acting director at the Skaraborg Institute for Research and Development, Skövde.

Lars Lindholm. Professor in Health economics. Studies on equity in health economic evaluation and the use of epidemiological data in the distribution of health care resources.

Kristina Lindvall. Dietitian, master in Food and Nutrition, doctoral student. Involved in a research project studying attitudes, norms, behaviours, strategies and eating habits important for weight maintenance.

Curt Löfgren. Senior lecturer in Economics. Study director of the Master of Public Health Programme. Doctoral studies in health financing, particularly the role of people's preferences when introducing health insurance in third world countries.

Göran Lönnberg. Statistician, research assistant. Involved in the projects: “Västerbotten Intervention Program” (VIP), “Sweden Stroke Prevention Study” (SSPS), “The Diabetes Incidence Study in Sweden (DISS)”, the Celiac disease National Swedish Register and the Butajira Rural Health Project, Ethiopia..

Ingrid Mogren. MD, Ass prof, Gynaecologist/Obstetrician. Lecturer in reproductive health, obstetrics and gynaecology. Research on complications of pregnancy and delivery and pregnancy-related future health problems for both the woman and the offspring. Reproductive health in developing countries. Also attached to the Department of Obstetrics and Gynaecology.

Lena Mustonen. Information manager (the web site, UISPH newsletter and Annual Report). Also working with course administration and administration within the Kagera Aids Research Project and the childhood diabetes registry.

Anna Myléus. Medical intern, doctoral studies on the Swedish epidemic of celiac disease in children, with focus on aetiology and clinical expression.

Nawi Ng. Senior lecturer in Epidemiology and Research Methods. MD, PhD. Involved in the INDEPTH Network (www.indepth-network.org). Conducted multi-center studies on chronic disease risk factors surveillance (WHO STEPS study) and on adult health and aging (WHO SAGE study). Member of the Oxford Health Alliance (www.oxha.org), an alliance aims at preventing and reducing the global impact of chronic disease. Participate in the Project Quit Tobacco Indonesia aiming at developing smoking cessation intervention in Indonesia and India under the Fogarty International Centre of the US National Institutes of Health.

Maria Nilsson. BA Social work. Doctoral studies on “Promoting health in adolescents – preventing the use of tobacco”. Also attached to the unit of Research, education and development at Västerbotten County Council.

Faustine Nkulu Kalengayi. MD, MPH. Doctoral student attached to the center for global health research. Research studies on the challenges and opportunities for HIV/AIDS/TB care and prevention among immigrants from countries in sub-Saharan Africa.

Margareta Norberg. MD, PhD. General Practitioner. Studies on early risk markers for the development of type 2 diabetes mellitus and the metabolic syndrome.

Fredrik Norström. PhLic. in Mathematical Statistics. Research on celiac disease and lecturer in Biostatistics. Statistical consultant in epidemiological and medical research projects.

Katrina Nordyke. Doctoral student.

Lennarth Nyström. Associate professor, Senior lecturer in biostatistics. Research is focused on the evaluation of mammography screening. Other research includes epidemiological studies of asthma, diabetes, epilepsy and multiple sclerosis. Also involved in studies of reproductive health in Zimbabwe and Tanzania and environmental tobacco smoking in Indonesia.

Jerzy Pilch. Project administrative assistant. Involved in projects on diabetes epidemiology and in the ETICS project. Responsible for computer network and maintenance at the department.

Måns Rosén. Adjunct professor, epidemiology and public health. Research on register-based epidemiology, regional epidemiology, health services research, health economics and assessment of primary prevention. Director of the Swedish Council on Technology Assessment in Health Care (former director of the Centre for Epidemiology (EpC) at the National Board of Health and Welfare).

Anna Rosén. MD, PhD student. Doctoral studies on “The complexity of celiac disease” including studies on inheritable causes, suitable screening methods and follow-up of screening-detected cases. Involved in the National Incidence Register of celiac disease in children. Also attached to the department of Medical and Clinical genetics.

Klas-Göran Sahlén. Nurse, MPH. Doctoral student. Lecturer in health economics and qualitative methods. Research studies in the area of aging and health economics.

Miguel San Sebastian. MD, PhD. Associate professor in public health. Research areas: Environmental epidemiology, indigenous health (Amazon region), and health impacts of globalisation processes.

Barbro Skog. Course administrator within the undergraduate medicine programme. Responsible for the department’s library and subscriptions.

Berndt Stenberg. Associate professor, occupational dermatologist. Research on skin symptoms related to indoor environmental factors in office work, nickel allergy and on psoriasis. Also attached to the Unit of Dermatology.

Hans Stenlund. Associate professor in biostatistics. Statistical consultant in several epidemiological and medical research projects. Director of research training.

Ann Sörlin. Physiotherapist, master in sports medicine. Doctoral studies on “gender equality and health”. Study counsellor at the International School of Public Health.

Stig Wall. Professor of epidemiology and health care research and Director, Centre for Global Health. Epidemiologist with a social science background. Research on epidemiology and international health, environmental and social epidemiology, prevention and medical technology assessment.

Susanne Walther. Working with budget and departmental administration. Also involved in the project on celiac disease, and research co-operation projects with Ethiopia.

Maria Wiklund. Physiotherapist. Doctoral studies on health promotion and aspects on prevention of psychosomatic and stress related problems in adolescents, gender perspective. Also attached to department of physiotherapy.

Birgitta Åström. Administrator for postgraduate education and for scholarships to master- and doctoral students. Coordinating support for guest students at master’s level, guest researchers, doctoral- and postdoc level. International contact person at the Department of Public Health and Clinical Medicine. Representative for the working environment at the department.

Ann Öhman. PhD, Ass prof. Research on social epidemiology (work, stress, and violence from a gender perspective in national and international studies; Sweden, Ecuador, Nicaragua and Indonesia). Also Director of Umeå Centre for Gender Studies, Umeå University

2. On-going Swedish and international studies

Our research activities are characterised by group work across disciplines and cultures. Epidemiological reasoning and methodology are central for disease surveillance, in the search for risk factors as well as in the planning and evaluation of intervention programmes. Studies could therefore be grouped under the three main problem areas – aetiological, social and evaluative research –, even though many projects cover more than one area.

Aetiological studies

often start from a specific disease or a suspected exposure. They focus on the relation of disease occurrence to social conditions and exposures and to environmental and lifestyle related agents. In Sweden, population-based registries of mortality and diseases enable analysis of changing patterns of mortality by geographical and social groups and also enable the surveillance of various risk environments. Such health information systems are badly needed in developing countries. They may serve as guidelines for primary health care activities and could also enable the assessment of disease trends and predict disease outbreaks.

A proper understanding of the aetiology of diseases and the natural history of disease processes – and of health – is essential for designing preventive programmes in public health. National and international studies reflect a wide range of research interests. Several of the studies specifically address the methodological problems of exposure assessment.

Social epidemiology

is directed to the social patterning of health and disease. The aim of *social epidemiology* is to characterise, quantify and analyse social stratification of health and health care, focusing on the mal-distribution and social inequity in health. In Sweden, distributional policy issues within the health care sector are increasingly being addressed. The recognition of the key role of community participation for public health promotion is a lesson learnt from Third World experiences. Social epidemiology

is also concerned with the social consequences of disease and prevention. Both quantitative and qualitative methods are used in data collection and in the analyses of social, cultural and gender differences in health.

Unfair distribution of health and the prerequisites for health between different strata are of central concern for social epidemiology. From this perspective a number of problem areas that have a special bearing on social epidemiology may be identified. Some may also respond to the international health policy research agenda being developed to meet emerging health problems and the ongoing epidemiological transition.

Evaluative research

An area where Swedish and development research share experiences is *evaluative research*. Evaluations are a basis for health planning and management. Epidemiological methods are essential in evaluations of preventive measures, such as community interventions and individual preventions within the health sector, as well as when assessing medical technologies and practices. Evaluations of health care measures aim to learn more about the efficacy, cost and ethics of the specific measures, adjusting health programmes accordingly and improving the implementation of public health interventions. In a Third World situation in particular, planning for health must be based on population knowledge, including information regarding the non-users of health services. Some applications are especially relevant. These relate to mother and child health, nutrition and infectious diseases, and the evaluation of primary health care.

Crossing boundaries

Most of the projects at our unit are a part of international or national collaborations and are crossing, not only the boundaries of the three research areas of aetiological, social and evaluative research (as previously described), but also other boundaries. The research projects are often multidisciplinary and originated within different occupational areas, research paradigms, cultures and contexts. Accordingly, it is not easy to put one label on each of the numerous ongoing

research projects at our unit, since most of them could have many.

Some good examples of projects with different partners and covering many topics of research are the unit's longest lasting bi-lateral research collaboration with Butajira in Ethiopia (since 1986) and also 'the Västerbottens Intervention Programme', which originated from our county council of Västerbotten.

Health economics is another example of crossing boundaries since it is often included as a miscellaneous research area. Health economic research follows two main lines – the normative base for economic evaluation and the integration of epidemiological and economic data as a basis for decision-making.

Yet another example is the combination of different quantitative and qualitative methods, often referred to as 'methodology triangulation' and often used in the unit's different ongoing research projects in Sweden and abroad. Longitudinal population-based and in-depth studies can in this way complement each other and hence enrich the final study outcome.

Several people from our unit are members of national and international research networks and, in the end of this chapter, two new networks are presented; "Ageing and living conditions" and "Umeå Centre for Gender Studies".

Umeå Centre for Global Health Research – a new addition to the Division

During the summer holidays of 2006, a number of people worked on drafting a proposal to set up a Centre of Excellence in Global Health Research, in response to a call from FAS, the Swedish Council for Working Life and Social Research, to Swedish universities for new work in public health. The rules of the game were that the Rektor of each university was allowed to submit a limited number of applications to fund new Centres over a 10-year period. Our application was duly selected within Umeå University for submission, and so it was sent off - and we largely forgot about it, knowing that the competition would be very keen.

Nearly a year later, in mid-2007, it came to us as a very pleasant surprise to hear that our proposal had been accepted, and funded by FAS to the tune of SEK 55 million over ten years. A further condition of the process was that successful universities would also contribute significant internal co-funding to new Centres, making the grant even more valuable. The other exciting thing about the funding was that it is intended to enable the development of a relatively open-ended research programme, rather than funding pre-determined projects. So this large amount of resources basically became available to us to "do global health research".

Stig Wall, as the Principal Investigator, established a Steering Group to manage the Centre (himself together with Peter Byass, Anneli Ivarsson, Nawi Ng, Lars Lindholm and Lars Weinehall) and a number of provisional research themes were established along the lines of our FAS proposal. More details can be found in an SJPH Editorial by Stig Wall. Robert Beaglehole, formerly of WHO and now at Auckland University, agreed to serve as the Centre's external advisor, to give us some wider perspectives on our work.



In the first months of the Centre's existence, naturally a lot of effort has gone into working out how we will operate and what will be our priorities. The "CGH", the in-house nickname we tend to use for the Centre, offers huge potential for the future, both strengthening the Division in general and allowing us to pursue exciting new areas of work. Up-to-date information is available at <http://www.globalhealthresearch.net> and new developments are evolving quickly. We look forward to the rest of the ten years!

Public health and the epidemiological transition

Many developing countries lack systems for the routine registration of vital events on a nationwide basis. Thus local community-based population surveys are often needed to understand public health needs and trends.

Collaboration between investigators in various countries, not least through the *INDEPTH network* (of which our collaborating field surveillance sites in Indonesia, Ethiopia, Vietnam, Nicaragua and South Africa are members) continues. One methodological challenge has been further work on determining cause of death retrospectively using the verbal autopsy technique. Although the verbal autopsy (VA) approach is well established, it has relied on a lot of doctors' time to interpret results. We have now developed a computer model for VA interpretation.

DSS in Ethiopia

In Ethiopia, the overall objective of the *Butajira "field laboratory"* has been to run a continuous Demographic Surveillance System (DSS) for registering births, deaths and mobility in a defined population of initially approximately 30 000 since 1987. Currently work is underway, not only to assess the current situation, but also to evaluate longer-term trends. All of these tasks can only be undertaken on a scientific basis if the background data of the population are known – for which the field laboratory concept for population surveillance is absolutely crucial. In many ways the area chosen is representative of much of Ethiopia – with a mix of ethnic, religious and social groups in ten different communities. Better understanding of health in these communities provides the impetus and platform from which interventions can be launched and evaluated. In demographic terms, it is clear that the area is undergoing considerable change, with increasing life expectancy and net movement towards the urban centre of Butajira town. 2006 was the 20th anniversary not only for the division but also for the Butajira project. The initial census that gave the baseline for demographic surveillance was performed in late 1986. In early 2006, a dataset including the first eighteen years of surveillance, 1987-2004, was compiled and

cleaned for analysis. As part of the anniversary celebrations, a poster was prepared. This shows results and output from the Butajira activities, both in terms of population experiences of vital events and academic achievements by the researchers involved within the Ethiopian and Swedish partner institutions. Overall, the picture of inequality between rural and urban areas persists. Unequal living conditions and access to services create differences in even the most crude public health indicators. The same pattern has been seen since the first year of operation of the Butajira DSS, without any changes except in short term fluctuations.

Contact: Anders Emmelin

DSS in Indonesia

Our collaboration with the Community Health and Nutrition Research Laboratory (CHNRL), Gadjah Mada University Jogjakarta and the Purworejo Demographic Surveillance Site (DSS) has played an important role in providing accurate demographic and epidemiological data for evidence-based policy making at the district level. Results from the demographic surveillance and from different studies conducted in collaboration with us have been utilised for district health planning during the last 10 years, especially in the field of mother and child's health and nutrition. Along with the epidemiological transition, our collaboration with Purworejo DSS has been expanded into the field of non-communicable disease (NCD) and its risk factors.

Together with the CHNRL Gadjah Mada University, Jogjakarta, and WHO, we are monitoring trends in important risk factors for non-communicable diseases over a 3-year period in Purworejo District during 2001-2004. Baseline age validation and NCD risk factor data collection, including smoking and alcohol consumption, physical activity, body mass index, waist hip ratio and blood pressure was conducted during the period September 2001 until February 2002. Verbal autopsy was conducted for all deaths identified in regular surveillance since 2000.

The baseline data showed a high prevalence of smoking (53.4% for males and 2.2% among females). Older females used more smokeless tobacco ("nyusur" in Indonesian). The overweight prevalence was as high as 20% in females, and women were considered to lead a sedentary lifestyle. Both smoking and obesity are

considered as major risk factors for many non-communicable diseases. This was confirmed by the verbal autopsy data, which showed cardiovascular disease, stroke and chronic obstructive pulmonary disease as the three leading causes of death in the year 2000. The results clearly showed the multiple burdens of NCD risk factors among the Indonesian population. Future research should be directed toward tailoring various community interventions to reduce the risk factor burden. Current activities (2007) is directed towards analysis of Quality of Life and mental health. The result of these analysis will be finished during 2008.

Contact: Hans Stenlund

DSS in Vietnam

The population of *Vietnam* appears to be undergoing rapid social and economic changes, following the war period and also in the current climate of "Doi Moi" reform. An epidemiological field laboratory called FilaBavi has been in operation since 1999 in the Bavi district, some 60 km from Hanoi. Its purpose is to give a perspective on a local population's demographic and health status as well as monitoring ongoing changes. FilaBavi is a joint effort with the Vietnamese Ministry of Health, Hanoi Medical University and the Health Strategy & Policy Institute, in collaboration with us and IHCAR at the Karolinska Institute.

Within the framework of the FilaBavi surveillance site, a project on reproductive health has been ongoing since 2004 in collaboration with Vietnamese counterparts. Vietnam is enjoying comparably low maternal and infant mortality rates in relation to the available health budget. The project aims to investigate the underlying factors and mechanisms resulting in the current situation. Qualitative data have been collected investigating the perception of risks during pregnancy among pregnant Vietnamese women and health staff. Data from the FilaBavi database will result in a population-based study on pregnancy-outcomes. Perinatal mortality and near-miss cases will be investigated through a prospective case-control study exploring possible avoidable deaths and obstetrical complications using an audit-protocol.

Contact: Lars Lindholm

DSS in South Africa

A 3-year grant plus a 1-year extension from SIDA/Sarec, under a special programme for bilateral collaboration with South Africa, has also facilitated further networking to explore surveillance methods and transitions in public health. This has enabled us to deliver courses in field research, epidemiology and public health informatics at the University of the North (subsequently re-named University of Limpopo, an historically disadvantaged institution in South Africa), as well as hosting students in Umeå. The University of Limpopo also hosts the Dikgale demographic surveillance site, where we are collaborating with data analysis. The third arm of this partnership is with the University of the Witwatersrand in Johannesburg, the host institution of the Agincourt demographic surveillance site in Bushbuckridge. We are engaged with PhD training for Agincourt staff, as well as collaborative work on methods underlying demographic surveillance which recently has been expanded also into a collaborative child health research initiative. This collaboration is also part of our international work on the health of ageing and the emergence of non-communicable disease epidemics, in close collaboration with the InDEPTH Network.

Contact: Peter Byass

Tanzania and HIV

Since 1986, the Kagera AIDS Research project (KARP) has followed the magnitude, the community response and the social impact of the HIV-epidemic in the Kagera region in Tanzania. A baseline survey revealed an overall prevalence of HIV-infection varying from 24% in the urban area to 0.4% in the most remote rural area. The population in Kagera formed a study base for both quantitative and qualitative studies to better understand the epidemiological and socio-anthropological dynamics. The first thesis, in 1994, included prevalence and incidence estimates, interaction between HIV-1 and syphilis infection, and also in-depth behavioural and socio-geographical studies with evaluation of knowledge, attitudes and perceptions regarding HIV-infection risks. The longitudinal design of the project has allowed population monitoring of prevalence and incidence trends. In the late '90s, studies from the urban area indicated a decline in HIV-infection prevalence among young adults and follow-up studies of incidence later supported these results.

Data from some of the rural areas also showed a declining trend in previously medium- and low-prevalent areas. The trend analyses were presented in a thesis in 2001. Parallel to the epidemiological monitoring, socio-anthropological studies were performed addressing the stress of AIDS, coping mechanisms, gender oppression and behavioural change. Socio-linguistic research contributed to the analysis of the linguistic discourses and metaphors relating to the epidemic presented in a thesis at Leiden University, Holland in 2001.

The encouraging results of a declining trend have been discussed based on qualitative data about social, cultural and sexual behavioural aspects of the observed changes [Lugalla et al 2004]. The specific role of Non-Governmental Organisations' preventive efforts targeting youth was the focus of a Masters thesis [2003:8]. These studies suggest major behavioural change that could be explained by the severity of the epidemic and the following cognitive and emotional reactions, but also by the diversity of intervention activities that have been ongoing in the area during a long period of time. However, the results also indicate a complex situation where the changes differ among different social strata.

The epidemic is still a great public health problem in the region and in Tanzania as a whole. The longitudinal nature of KARP is therefore utilised for continued monitoring of the direction of the epidemic and for focused sub-studies evaluating the role of interventions to better understand the promoting factors for change. We continue to follow the epidemic in the urban area and also re-visit areas not studied since 1987. The focus is to assess if and why they have been protected from further spread. The cross-sectional studies performed in 2005/2006 in the urban area revealed socio-economic and gender inequalities in the HIV prevalence. A planned PhD project will focus on equity aspects of HIV/AIDS, comparing the cross-sectional and follow-up data from the different districts in Kagera. By also testing and evaluating participatory intervention strategies specifically targeting the youth, the project also hopes to contribute in developing culturally acceptable intervention tools.

In Kagera, a new field organisation has been set up in close collaboration with the Regional Hospital. A group of new field staff have thus been trained and a project co-ordinator is employed to take overall responsibility for the planning and implementation of the fieldwork. A KARP website has been developed where the project is presented and the main activities and results summarised

(www.muchs.ac.tz/kageraproject/index.html)

Contact: Maria Emmelin

Priority setting of district health services in sub-Saharan Africa

Undertaking health sector reforms, including decentralisation, to improve performance has so far been less than satisfactory. Health systems are strangled in a vicious cycle: on the one hand management capacity is perceived as inadequate to take full responsibility for priority setting, on the other hand, without effective decentralisation of the priority setting process, the capacity will never increase. District level services from the most peripheral facilities to district hospitals account for a majority of service contacts, and are in general the only services accessible to the poor. Therefore, a district focus is necessary to improve quality, and capacity and outcomes of countries' overall services.

Attempts have been made to strengthen district level planning and management, mainly based on measuring burden of disease, cost effectiveness and capacity considerations and related planning tools. However, sustainability has not been achieved and the value of this approach has not been proven.

National policies, health strategies and plans normally include a strengthening of district health boards with intended community representation and more or less active stakeholder forums. These have so far not performed as expected but they do exemplify that more inclusive priority setting and planning processes are intended. In this situation it is argued that in order to improve quality, equity, accessibility and affordability of care at district level, there is a need for new approaches to priority setting that fairly reflect, not only the mainly provider-defined burden of disease, but also incorporate capacities and interests of all stakeholders and the demands of the population being served.

A democratisation of decision making and priority setting processes is one way to counterbalance streamlined global policy making and improve local governance. In a five-year EU-supported project, which started in 2006, ways of improving the processes of priority setting in district health management will be studied through action research in Tanzania, Kenya and Zambia. This project will further study the capacity of local priority setting at district level in developing countries where considerable resources come from international actors with their own priorities and agendas. We will involve ourselves in this project in partnership with public health and social science oriented academic institutions in each of the African countries and three public health institutions in the EU.

Contact: Anna-Karin Hurtig

Controlling Tuberculosis and HIV

Four research students are working on their projects focusing on how international programmes of HIV and tuberculosis (TB) control are being implemented locally. The four projects, described below, try to capture the local challenges faced when implementing programmes we often get to know by their international abbreviations.

Mother-To-Child Transmission of HIV in Malawi

In the absence of intervention, 15-35% of infants delivered to HIV-infected mothers will become infected themselves. The discovery that as many as half of these infections are preventable with intrapartum and neonatal single dose nevirapine (NVP) has transformed the ability to confront this transmission route. The PMTCT programmes aim to expand voluntary counselling and testing, improve acceptance of HIV-infected persons, and develop extensive community education in order to provide benefits beyond the infants lives saved with NVP therapy. The PMTCT is also an entry point for antiretroviral treatment (ART) for symptomatic infected mothers. While simple and cost-effective measures are now available to PMTCT, there are still many challenges to the programmes due to underlying barriers. These need to be considered and understood before scaling-up of programmes.

Malawi is one of the African nations hardest hit by the AIDS pandemic. Nearly 16% of adults ages 15 to 49 – some 800,000 people – are believed to be infected with HIV, and a child born today has a life expectancy of just 37 years. HIV prevalence rates in pregnant women countrywide range from 16% to 36%. In 2003, 520 000 women of childbearing age were estimated to be infected with HIV and about 35% of these mothers are likely to transmit HIV to their newborns.

Coupled with a government initiative for the provision of ARVs to the people who need them, the ART provision services have been extended to Thyolo district. It is in this district where Malamulo hospital is operating and, since August 2004, the centre has begun ART service provision together with PMTCT services. This doctoral project aims to study the demand and compliance of PMTCT services among women in rural Malawi and to explore barriers and promoting factors to delivery of the PMTCT programme as perceived by rural women, men and service providers. Special attention is given to the implications of home deliveries to the programme.

Contact: Fyson Kasenga

Improvements in Tuberculosis control in Indonesia

Indonesia has shown promising progress in Case Detection Rate and Treatment Success Rate in the Tuberculosis Control Programme. However, DOTS (the internationally recommended strategy) is not provided to TB patients in all health facilities, including hospitals, although almost all geographical areas are covered by DOTS through health centres. In fact, many TB cases in hospitals are not managed properly and are not reported to the National Tuberculosis Programme. The National Tuberculosis Programme has initiated the expansion of DOTS to hospitals in Indonesia between 2006 and 2010. However, lessons from the Hospital DOTS Linkage Project in Jogjakarta, Indonesia, have shown that whilst the involvement of hospital in DOTS has contributed to the increase of Case Detection Rate, hospitals are weak in respect to case holding and treatment supervision. It is therefore important to identify the potential facilitating factors and barriers to scaling up DOTS in hospitals in order to contribute to the planning and implementation process in the Ministry of Health. This may also provide useful

lessons in the scaling up of public health programmes in clinical settings in general. The overall aim of this doctoral research is thereby to contribute to the tuberculosis control programme in particular as well as to the health system in Indonesia in general.

Contact: Ari Probandari

The co-epidemic of tuberculosis and HIV/AIDS in Cameroon

WHO recommends collaborative TB/HIV activities and the policy goal is to decrease the burden of TB and HIV in populations affected by both diseases. The objectives of collaborative activities are: (1) to establish the mechanisms for collaboration between TB and HIV/AIDS programmes; (2) to decrease the burden of TB in people living with HIV and AIDS; and (3) to decrease the burden of HIV in TB patients.

Likewise, providing highly active anti-retroviral therapy (HAART) to HIV infected TB patients is now a WHO 'standard of care' policy and managers of several DOTS programmes have adopted this.

Through strengthening the links between HIV and TB programmes and general health services, voluntary counselling and testing (VCT) serves as the entry point for prevention and treatment of HIV/AIDS, and as a key to a more coherent response to TB in high HIV-prevalence settings.. However, experience has been shown that TB patients' and the community's responsiveness to seek treatment is as important as providing these services, and these factors determine the overall effectiveness of the services. The dual stigma and social exclusion associated with HIV and TB might act as barriers to TB patients being tested for HIV. Lack of awareness of the link between TB and HIV, traditional beliefs and the taboos associated with the disease all play an important role in the scourge. Other contributing factors may include the cost of seeking care, gender inequality issues, ethnic group and health care system factors, such as staff attitudes towards these patients. It is therefore of paramount importance that the socio-cultural, environmental and political factors, which are common to both TB and HIV/AIDS, are addressed jointly in control strategies.

TB/HIV co-infection poses a major threat in the Northwest Province (NWP) of Cameroon and thus necessitates important measures to curb the spread and reduce new infections, and treat already existing cases. The overall objective of this planned PhD project is to identify the various barriers to VCT for HIV among TB patients in the NWP of Cameroon in order to highlight the benefits of collaborative TB/HIV activities to policy makers and improve uptake of VCT services in the province.

Contact: Barnabas Njoring

HIV/AIDS/TB care and prevention among Swedish immigrants

Currently, Sweden and other Western European union (EU) countries are experiencing increases in immigrant-associated TB and HIV cases, which is an important public health challenge. Africans are the most severely affected migrant community for both HIV/AIDS and TB. These communities have different cultural backgrounds and speak different languages, which can restrict them from accessing and using health care services and therefore prevent them from receiving the care they need. Moreover, structural barriers may result in some populations, including undocumented migrants, being neglected in terms of detection of health problems and in health service provision. These are substantial obstacles to HIV/AIDS and TB care and prevention among immigrants and the Swedish population in general. Identifying and understanding the role of these barriers may help to develop integrated intervention programmes.

This project is therefore an attempt to determine the effects of socio-cultural, structural and linguistic barriers, as well as prejudice, on the prevention and care of HIV/AIDS and TB among immigrants in general, and sub-Saharan African immigrants in particular, by asking the following questions: What are immigrants' knowledge, beliefs and attitudes concerning HIV/TB transmission, prevention, care and treatment? What are the barriers to health care service utilisation and to diagnosis, prevention and treatment of HIV/TB among sub-Saharan African immigrants? Do the barriers include accessibility, acceptability, availability and affordability? What are care providers' experiences of caring for immigrant patients? What lessons can be learned?

The overall aim of this project is to investigate, identify and delineate potential difficulties to HIV/AIDS/TB care and prevention with a view to recommending ways in which these may be overcome.

Contact: Faustine Nkulu Kalengayi

Fighting poverty and natural disasters in Nicaragua

Nicaraguan society has been characterised by rapid social changes during the last twenty-five years. A dictatorship followed by political unrest, along with recurring natural disasters characterises the small Central American country and it is ranked as one of the poorest in the Americas. The poverty is affecting more than two thirds of the population. The educational and health systems need to be reinforced so that these services may be available to all members of society. The government are reorganising these systems and free schooling and health services have been introduced along with free lunches in schools.

In September 2007 yet another disaster, hurricane Felix, ravaged along Nicaragua's Mosquito Coast, and in the aftermath vast areas of land were destroyed and thousands of people displaced. Relief work was delayed since little attention was given by international media and these remote areas also have a less developed infrastructure. This caused León University to recruit teams of health workers and medical students and send them to support the local authorities and university. This collaboration is now planned to be made permanent.



In September 2007 hurricane Felix caused disaster on Nicaragua's Atlantic Coast

UNAN-León – arriving at sustainable research training

Since the 1990s, Sida/SAREC has supported research collaboration with the Nicaraguan university, UNAN-León, and the Swedish universities Karolinska Institutet, Umeå University and Uppsala University within the research areas of infectious diseases, occupational health, demographic health research, reproductive health and mental health. The long-term objective has been to strengthen research capability by supporting post-graduate training at the medical faculty in León. The ongoing cooperation between each institute has achieved its first step by offering masters programmes in epidemiology, occupational health and infectious diseases, and through the creation of three research centres. The collaboration has also witnessed the graduation of 11 PhD students, sandwich trained in collaboration with Swedish universities, and the publication of 108 scientific articles.

Swedish government decided in 2007 to close down development aid as well as research collaboration with Nicaragua. For the out-phase period (2008-2011) all registered PhD student will have support from Sida/SAREC to finalize their theses. Further, the medical faculty of Uppsala University will support UNAN-León to enter the final stage of having a local PhD programme to achieve a sustainable research environment in medical sciences at UNAN-León.

CIDS and Umeå

For Umeå University (Department of Epidemiology and Public Health Sciences and Department of Psychiatry) the Nicaraguan counterpart in the collaboration is the Centre for Demographic and Health Research (CIDS), founded in 2002, with the objective to create a permanent platform for field epidemiology training at masters level and for postgraduate studies, primarily directed to students from the Central American region. Since the beginning of 2005, regular cycles of updated base line data for the HDSS (Health and Demographic Surveillance System) have been taking place. This is the core activity of CIDS and serves as a platform for population-based studies, a sampling frame for interventional studies in occupational health, and community diagnostics of infectious diseases. Thus, it is anticipated that new links will be created with other research programmes and suitable conditions for the development of

research intervention strategies for any public health problem may be established.

Research has already been performed in the areas of maternal and child health, adolescent sexuality, suicidal behaviour, post-traumatic stress after the hurricane Mitch, accidents, domestic violence and the effects of violence on reproduction and child health. The knowledge gained on prevalence and mechanisms for action allows for planning of interventions in health services research, prevention of accidents, suicide and teenage abortions, STDs, HIV infection and for prevention of dengue haemorrhagic fever.

The joint program of CIDS Demographic and Health Research is with IMCH, Uppsala University and Umeå University. The units of Mental Health and Gender and Reproductive Health are now developing further collaborations with Uppsala and Umeå.

Sibling caretakers

An ethnographic study on sibling caretakers has been performed in deprived, urban areas of León, Nicaragua. The aims were to identify, describe and analyse the life situation of these children, based on their own perceptions and experiences. Apart from looking after their siblings, these children perform all daily, routine chores in their homes. The majority of the children did not attend school. We found that the care-giving role implies a narrowing of life options in a long-term perspective. These children achieve essential life skills early in life, but as they grow older they tend to fall behind due to their marginalised situation and lack of basic education.

The Western concept of childhood is however challenged by these young people's experiences –work is a natural part of their everyday lives and they react to this with pride. They perceive their work as important for their families and they appreciate providing for their siblings. Combining work and school was a challenge for most of them. They had very little free time, and have limited opportunities to nurture relationships with others. The awareness that they miss out on education is the most problematic issue for them as caretakers.

Contact: Kjerstin Dahlblom

School attendance in León

Since school attendance was found to be one of the problems for sibling caretakers, a study on school dropouts was conducted and is now being analysed. The poor educational level in Nicaragua is shown in the recent estimates of school dropouts, reporting that fewer than 60 percent of children who start school reach even the fifth grade in primary school. In our study we asked 370 children, in the age-group 6 to 16 years of age in León to complete a matrix on their school attendance. Detailed information on repetition and drop-out were collected to detect risk patterns of quitting school.

One of our findings was that the children blame themselves for not succeeding in school, and they perceive it as an individual problem. For a deeper understanding of why they see it this way, individual interviews with around 15 children and six focus groups with children age 12-18 years were conducted. Analyses of these are on-going.

Contact: Kjerstin Dahlblom

Studies on suicidal behaviour among young people

Research on suicidal behaviour started with a hospital surveillance of suicide attempters admitted to hospital. Young girls had the highest suicide attempt rate and the surveillance was followed by in-depth interviews with girls to explore pathways to suicidal behaviour. Later on a community based study was performed to examine various suicidal expressions in the community among young people, including suicide ideation, suicide plans and attempts. Suicidal expressions were further examined as related to possible risk factors such as exposure to suicidal behaviour among significant others and attitudes towards suicide. In the community study, boys showed more serious suicidal behaviour. Various studies within this research field have been included in the PhD-thesis by Trinidad Caldera 2004 and the PhD-thesis by Andres Herrera. This research now continues with Claudia Obando's PhD-project which investigates mental health problems, drug abuse and other risk factors for suicidal behaviour with special reference to young boys.

Contact: Kjerstin Dahlblom

Studies on intimate partner violence.

The research field of intimate partner violence was initiated by Mary Ellsberg (PhD thesis 2000: “Candies in hell: research and action on domestic violence against women in Nicaragua”) and Dr Eliette Valladares (Ph D thesis 2005: “Partner violence during pregnancy, psychosocial factors and child outcomes in Nicaragua”). This research line is now continued by Dr Mariano Salazar with the PhD project “Child outcomes, protective and risk factors for intimate partner violence in Nicaragua: a cohort study” addressing prevalence and characteristics of continuous intimate partner violence and its effect on the index children’s morbidity and growth in Nicaragua. These PhD projects all emanate from the department of psychiatry.

Contact: Ulf Högberg

Tobacco prevention – a global, national and regional mission

Each year tobacco products kill close to 5 million people around the world, and WHO predicts that the number of tobacco related deaths will rise to 10 million within the next fifteen years. The global trend is that smoking is increasing with a transition from north to south. Worldwide, about 50% of men and more than 10% of women smoke. In 2003, WHO adopted the Framework Convention on Tobacco Control to promote global action against tobacco, the first framework convention in the field of public health. The convention was ratified at the end of 2004 and Sweden signed the convention in June 2005, after adaptations of the Swedish tobacco law. There are, however, still issues that need to be resolved from the Swedish perspective in order to be able to fulfil the demands of the convention. The main strategies used in Sweden to reduce smoking on a societal level during the last decades have been through information, taxation and legislation. At the group and individual level, the most important strategies have been tobacco cessation initiatives targeting adults and supporting young people in saying no to tobacco. Both adults and young people need to be addressed in order to reduce the use of tobacco. From a Swedish perspective, tobacco prevention in young people is an under researched field. So is research on snus. From a global perspective

tobacco is a severe threat to public health. There is a need for more knowledge, interventions have to be developed and evaluated. Research projects at the department are addressing these issues. Different examples of our work in the field of tobacco prevention are given below.

Tobacco free duo

In order to prevent adolescent use of tobacco in the county of Västerbotten, the development of a long-term programme started in 1993 by the County Council. The programme, which targets young people and is called ‘*Tobacco free duo*’, is a comprehensive programme mainly focusing on building policies, increasing knowledge on tobacco related issues and utilising adult support and methods of social influence. The programme was evaluated in 2006 and a significant decrease in the prevalence of smoking among young people in Västerbotten was found, compared to the national level. The name ‘*Tobacco free duo*’ originated from the idea that a young person and an adult signed a mutual contract to stay tobacco-free together for the next three years. The adult was thereby making a commitment to both provide a good example and to actively support the younger person in staying tobacco free. The effect on tobacco use among the adults involved was studied in 2008.

Contact: Maria Nilsson

Tobacco and pregnancy in South Africa

In recent decades increasing urbanisation has been seen in South Africa, particularly in the black African population. In 1991, 48% of the population lived in urban areas, increasing to 54% in 1996 and it is projected to rise further. The South African population is also highly mobile and migrates constantly between rural and urban areas, resulting in a quick transfer of urban influences to rural areas. A dual burden of disease occurs. The challenge for health is to complete the unfinished task of managing the diseases of poverty while simultaneously initiating prevention and cost-effective care of patients with non-communicable diseases. One priority is tobacco prevention in coloured pregnant women. It has been shown that the coloured women of South Africa have high smoking rates during pregnancy. Consequently, they have high rates of pregnancy complications affecting themselves and their unborn babies. In collaboration with the Medical Research Council (MRC) in Cape Town,

studies have been carried out in Western Cape to identify the influences on coloured pregnant women causing them to smoke, to describe the role of midwives in smoking prevention and cessation and to describe the perspectives of key informants in the health services regarding the high smoking rates. The results from these studies and intervention experiences from other settings, including Sweden, formed the basis for designing an intervention study. During a series of exchange visits and joint workshops, a plan for the intervention and a scientific evaluation was developed in close collaboration with actors involved in the training of midwives and those responsible for developing antenatal services in South Africa and in the province of Western Cape. A baseline survey was performed during 2006 and the intervention phase started in January 2007. Two South African PhD theses (one registered at our department) will be based on this project. The first will focus on the development of the intervention design and on the evaluation of its impact on smoking rates while the other will describe the intervention process and its influence on midwives and pregnant women.

Contact: Maria Emmelin

Tobacco control in Indonesia

Indonesia is the fourth largest tobacco market in the world. The high level of tobacco consumption is an effect of a weak tobacco control policy. The main reasons for poor tobacco control methods are the contribution that the tobacco industry makes to government revenue and job opportunities. The government is dependent on the tobacco industry as a means for sustaining employment levels, and for taxation revenue. Programmes and policies to reduce the exposure to environmental tobacco smoking (ETS) in public places and workplaces are regulated, but not well implemented. Today almost all studies on ETS are performed in developed countries with a prevalence of smoking lower than in most countries in Asia, and in particular in Indonesia where a totally different smoking culture exists, including higher tolerance of smoking in public places and at home. Therefore, a study has been initiated with the overall objective to study the effects of ETS exposure on the respiratory status of adolescents and to understand social norms and beliefs for

implementing a feasible strategy to reduce domestic ETS exposure in Jogjakarta, Indonesia. A survey of 2296 households showed that 47% of men and 59% of women aged 15-75 years were exposed to ETS.

Contact: Lennarth Nyström

Smokeless tobacco in association with other lifestyle habits in Sweden

In Sweden the use of smokeless tobacco, snus, has increased dramatically in parallel with decreasing smoking prevalence. Today 19% of men and 4% of woman use snus daily and 12 % of men and 16% of women are smokers. Studies on associations with disease outcomes have shown conflicting results regarding risk of myocardial infarction and diabetes but these studies have generally been rather small and not taking different doses of snus use into account. In panel studies based on Västerbotten Intervention Programme we have previously shown associations between high consumption of snus and metabolic syndrome, obesity and hypertriglyceridaemia. Several review articles have concluded that there is a need of large longitudinal studies on potential health hazards of snus use. There is a well known association between smoking and alcohol consumption and a similar association is shown among Swedish male adolescents, but comparable studies on adult populations are lacking.

Our previous studies are now extended and focused on associations between snus use and other life style habits. Preliminary results show that there is an association in a middle-aged population between alcohol consumption and the use of snus

Contact: Margareta Norberg.

Gender based violence

Intimate partner violence during pregnancy in Sweden

In a project from Umeå, both quantitative and qualitative methods have been used with the aim to study different viewpoints on intimate partner violence (IPV). The main focus has been on gender and on the period of pregnancy and child-birth, and the study has been carried out in different locations in the north and middle of Sweden.

Midwives working in antenatal care in Västerbotten were asked about experiences,

knowledge, attitudes and routines regarding violence against pregnant women. At the time of the study, IPV was not a part of the antenatal care agenda and, although very knowledgeable about and sensitive towards pregnant women and their needs, midwives rarely revealed the occurrence of violence and were probably disclosing only a fraction of the cases. Guidelines about asking all pregnant women about violence were initiated in antenatal care in Västerbotten in 2005 and findings from this study were included in the development of this policy.

Professionals working with men prone to act violently were interviewed at two prisons and at two centres for men (inclined to violence or with different life crises). The intention was to explore professional discourses regarding IPV. Despite the professionals' good intentions of building an alternative masculinity as a way of counteracting men's violent behaviour, their discourses may in fact have the opposite effect by re-enforcing gender stereotypes and even omitting important relational topics in the programmes [Edin et al., 2007, 2008].

Women that had been subjected to IPV during their pregnancies were interviewed. They described relationships with severe violence where they balanced between hope and despair. The women had several strategies to cope in everyday life, to protect the family and the unborn baby and while they offered resistance to the violence they also tried to cover up, frequently even when meeting midwives at antenatal care appointments.

Men that had been reported as violent against their partner and had joined treatment programmes have been interviewed in an ongoing study. Nine interviews have been carried out this far. The results from these interviews are aimed to generate new thinking about discourses of violent men. The insight is expected to be used to counteract and prevent violence, in particular when related to intimacy, pregnancy and parenthood.

Contact: Kerstin Edin

Violence Against Women - A Global Network

Violence against women (VAW) is a major public health problem. The research challenges are now in-depth analysis, cross-cultural understanding, how to strengthen the health

sector response and addressing men's role in prevention. Swedish research on VAW is internationally recognized and has extensive research collaboration with low-income countries. Gender and Medicine (Linköping), IMCH (Uppsala) and Epidemiology and Public Health Science (Umeå) have started a globally oriented network as an interdisciplinary arena of gender, public health, epidemiology, and social sciences. The overall objective is to generate knowledge for development support. The specific aims are: discussion, exchange and development of common research questions, methodology and cross-cultural studies dissemination of knowledge north-to-south and south-to-north. http://www.hu.liu.se/ike/genus-och-medicin/vaw_global_network

Contact: Ulf Högberg

WHO multi-country study: Ethiopia

A study of Women's health and Domestic violence was carried out within the BRHP infrastructure in 2001. This included qualitative components exploring attitudes and perceptions about domestic violence, a cross-sectional survey of the prevalence of domestic violence among women of reproductive age and its association with mental health, and a sub-study of the association between exposure to domestic violence and child survival. The study followed the core protocol and questionnaire used in a WHO multi-country study performed in different parts of the world but also included an additional part for screening of mental disorders (CIDI). The project is a collaborative venture between our Department, the Department of Psychiatry at Umeå University and the Department of Community Health in Addis Ababa. The results from the Ethiopian cross-sectional study were included with the results from nine other countries (Bangladesh, Ethiopia, Japan, Namibia, Peru, Samoa, Serbia and Montenegro) in the WHO Multi-Country Report launched in 2005. The multi-country study is unique for its consistent methodology, which makes the results comparable across sites. The study confirmed a large variation in both lifetime and 12-month prevalence of violence. The lowest

figures for lifetime prevalence of physical and/or sexual violence were observed in urban Japan (15%), while the highest were found in rural Ethiopia (71%) and Peru (69%).

Further analyses of the Ethiopian data constitute the basis for a PhD project in psychiatry by an Ethiopian collaborator who will focus on poverty and mental health, and will investigate the association between domestic violence and mental health, changing attitudes and norms and child survival.

Contact: Ulf Högberg

Prevention of domestic violence in Indonesia

The research theme of intimate partner violence (IPV) will be addressed in a PhD project. The objective is to generate knowledge of women's experiences and perceptions of domestic violence in Indonesia and to identify feasible preventive strategies at the community level, especially focusing on masculinity and men's involvement as health promoters for prevention. The framework is gender research. The methods applied will be quantitative, analysing data from a cohort of women interviewed with the WHO-questionnaire on domestic violence, and qualitative, with focus group interviews and in-depth interviews with women and men. It is anticipated that the results will improve managerial knowledge on norm systems, and identify barriers and supporting factors for ending IPV.

Contact: Maria Emmelin

Violence research in Tanzania

The initial results on prevalence, health outcomes and women's responses from the multi-country study on women's health and domestic violence against women were presented recently. The study was based on surveys in 10 countries, one of them the United Republic of Tanzania. Based on sampling of 2200 households in the capital Dar es Salaam and in Mbeya, the prevalence of physical or sexual violence or both was estimated at 19%, 12%, and 27% respectively in Dar es Salaam, and 16%, 9.4% and 22% respectively in Mbeya. During 2006, three new projects were initiated within the same subject area. All three

studies will be performed in Ilala district in the southern part of Dar es Salaam. One of the projects aims at estimating the prevalence of rape and describes socio-cultural factors and responses to rape and rape victims with a view to being able to develop preventive political and community strategies as well as improvements in health care. The second project is looking at health workers' and community groups' perceptions about intimate partner violence and their roles in care and prevention with a view to suggesting relevant intervention strategies within health care organisations as well as at the community level. The third project focuses on the sexual abuse of children, with the overall aim of contributing to a better understanding of the magnitude of the problem, identifying community perceptions and socio-cultural factors that perpetuate its occurrence, and identifying the perceived roles of different community groups in handling the problem.

Contact: Maria Emmelin

Reproductive health

Adolescent pregnancies in the Amazon basin of Ecuador

Nearly 1,2 billion of the world's population is adolescent, the great majority living in developing countries. At this period of challenges and transformations, gender inequities place girls at higher risks of abandoning school, early marriage and childbirth.

In the Andean Region of South America 1.5 million out of 7 million of adolescent women are or have been ever pregnant. Adolescent fertility rate has not declined, and in countries like Ecuador, it has increased from 84 per 1000 in 1989 to 100 in 2004.

Ecuador, where 20% women get pregnant before 18, has the highest adolescent fertility rate of the Andean region. In Ecuador inequalities between girls of different educational levels, geographical regions and household incomes are prominent. While 43% of illiterate adolescents are or have been pregnant, only 11% of adolescents with secondary education are. Geographically, the Amazon basin shows the highest adolescent fertility rates (121 per 1000).

Studies on adolescent pregnancies abounds, the majority highlighting the negative consequences related to reproductive outcomes (especially

among the youngest), general health and educational and socio-economic. There is also qualitative research pointing out the perceived positive outcomes related with “gaining status and respects” in contexts where maternity is core value for women.

Research on adolescent pregnancies has been predominantly centered on Demographic and Health Surveys’ data from fertile age women (15-49), hospital based records and developed countries. On the other hand, research has neglected the most vulnerable areas and populations: younger adolescents, the poorest regions within countries, indigenous populations.

The overall aim of this project is to contribute to a better understanding of adolescent pregnancies in the Amazon basin of Ecuador, and to identify protective factors useful for the development of preventive strategies, focusing in the youngest adolescents and indigenous nationalities.

Decrease of adolescent pregnancy needs a broad approach that does not only look at the numbers, but goes in depth in the meanings. On the other hand, policy makers need statistics in order to get an idea of the magnitude of the issue. This research attempts to tackle both aspects, the final aim being to contribute to the development of local policies relevant to the issue of adolescent pregnancies.

Contact: Isabel Goicolea

Chronic diseases in children and adults

Health in childhood and adolescence

Obesity and pain symptoms may be regarded as “*new morbidities*” in modern society and are becoming increasingly prevalent in adults and teenagers, however we know little about these health problems among younger school children. In an epidemiological study among 6-13 year olds in Umeå, we found that the proportion of children classified as overweight was 23% (double the proportion of 15 years ago). The prevalence of pain symptoms (head-ache, stomach-ache, backache at least once a week) was also 23%. In an ongoing study on mental health among children 9 and 12 years of age, the relationship between mental health and quality of life on the one hand, and

overweight and pain symptoms on the other, will be explored further. Preliminary results show that approximately 50% of children who are overweight do not perceive themselves as overweight, and neither do their parents. Children who were aware of being overweight reported a poorer quality of life. A study among 4-year-old children in the county of Västerbotten shows that overweight and obesity are more prevalent in girls than in boys and the prevalence is as high as in school age children. A low socio-economic level of living area seems to be related to a higher prevalence of obesity. Increased preventive efforts, at both the individual and the societal level, must be undertaken to reduce further health risks in obese children.

Contact: Erik Bergström

Celiac disease – a public health problem

Celiac disease, or permanent gluten-sensitive enteropathy, should be added to the public health research agenda worldwide. So far it is an often unrecognised contributor to ill-health, even though an effective treatment is available – namely avoiding all foods with wheat, rye or barely for life. This is not an easy dietary regime and through a focus group study we are exploring how compliance can be facilitated.

For many years we have been responsible for a national incidence register of celiac disease in Swedish children [www.celiakiregister.se], and all 47 paediatric clinics across the country recently contributed to a follow-up from 1998 to 2003. Previously, Sweden experienced a marked epidemic of celiac disease in children below two years of age, partially explained by changes in infant feeding over time. Our follow-up reveals that the increased risk for celiac disease, caused by unfavourable infant dietary practices, remains throughout childhood.

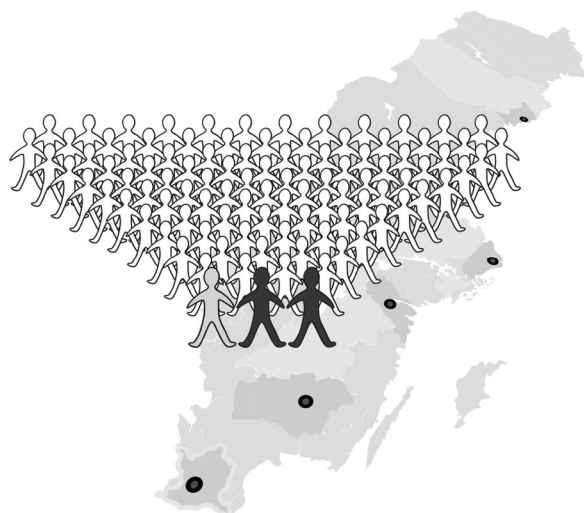
A multi-centre incident case-referent study, combined with an ecological approach, demonstrated that the epidemic might have been avoided if all infants had been introduced to gluten in small amounts while still being breast-fed. Also, other lifestyle factors of potential importance for celiac disease development, such as childhood vaccinations and infections early in life, are being explored.

The Swedish experience has promoted a changing view among the international research community on the aetiology of celiac disease, from

deterministic to multifactorial, thus fostering prevention initiatives. We are responsible for Sweden's contribution to a cross-national European multi-disciplinary research project with the ultimate goal to reduce the celiac disease burden among European populations by favourable infant feeding advice [www.preventcd.com].

Serological markers facilitate the screening and diagnosis of celiac disease; however a small intestinal biopsy is still necessary for disease ascertainment. Based on the multi-centre case-referent study, we are evaluating the most promising serological markers and also considering the potential role of humane leukocyte antigen typing.

In all populations approached for celiac disease screening it has become evident that a considerable number of cases remain undetected, however to a varying extent. Therefore it is debated whether mass screening should be recommended. We are contributing to this debate with further scientific evidence from a Swedish multi centre screening programme entitled ETICS; Exploring the Iceberg of Celiacs in Sweden [www.etics.se]. The programme includes 12-year old children born during the epidemic and post-epidemic years, respectively, to compare the prevalence in these cohorts of both symptomatic and previously undiagnosed celiac disease. This will also further clarify whether primary prevention of celiac disease is possible. The first part of the field phase has been completed, involving 10 041 invited children out of which 7 567 participated. An unexpectedly high prevalence of celiac disease (3%) was revealed, out of which 2/3 of cases were previously undiagnosed. Sub-studies are ongoing evaluating consequences of such a mass screening for both individual and society, including a health economic evaluation. In doing so both quantitative and qualitative research approaches are used. General celiac disease screening among adults also needs to be evaluated, and the Västerbotten Intervention Project (VIP) would be an excellent framework for such an effort.



Celiac disease revealed in 3% of Swedish 12-year-olds, with 2/3 of cases undiagnosed prior to screening.

Moreover, we are represented in the steering committee of a growing European platform for research on prevention and treatment of celiac disease by integrating basic scientific knowledge in clinical applications and the food industry [www.cdeussa.com]. A position report on recommendations for future research was recently finalised, and a monthly newsletter is widely distributed among the celiac disease research community.

Contact: Anneli Ivarsson

The occupational and living environment

Indoor pollution in Ethiopia

The effect of *indoor exposure to biomass smoke* on children's risk of acute respiratory infections (ARI) is the topic of a study performed in collaboration with the Department of Community Health, Addis Ababa University, Ethiopia. Indoor air pollution has been suspected to contribute to the high ARI mortality rates in many developing countries, where biomass fuels and agricultural wastes are burned in open, non-vented fireplaces. The smallest children in particular, whose ARI mortality is the highest, can have extremely high exposure to cooking smoke in the home, since they spend more of their time with the mother and are often carried on her back while she is cooking. The study setting is the Butajira area in central Ethiopia, where the continuous demographic surveillance system of the Butajira Rural Health Programme (BRHP) provides an infrastructure for

research. The study is a prospective case-referent study of ARI morbidity, with exposure assessment carried out in cycles for all households with children less than five years throughout the eighteen month follow-up period. Nitrogen dioxide (NO₂) is used as a marker for smoke and measured by passive sampling.

From the second quarter of 2000, pollution samples were collected every three months from each of approximately 3,300 households. Samples were brought to Addis Ababa for analysis within two weeks of sampling and data collection was completed in April 2002. Approximately 1,500 cases of pneumonia (among the under fives) have been found and treated in the Health Posts. Information about the pre-diagnosis period of the cases and approximately 4,000 incident referents have been collected from their mothers. Quarterly interviews with all mothers of children under five throughout the follow-up period have generated longitudinal information on exposure and a number of background factors relevant to the study. At the same time, samples of NO₂ have been taken from the indoor environment and, in all, nearly 19,000 samples have been analysed in the laboratory in Addis Ababa. Data entry was completed in 2005. Data cleaning of this huge dataset took up much of 2006, leading to complete material to be used for the first of at least six articles in two PhD theses. Two articles were prepared during 2007, one submitted.

Contact: Anders Emmelin

Gender and health

Does gender equality in working life lead to economic growth through better health and less sick leave?

Gender equality in a Swedish context:

- In Sweden, gender equality relates to equal opportunities, rights and responsibilities for men and women, for example, in work, which enables economic independence, in the care of children and the home, and in participation in politics, unions and other social activities;
- Since 1992, there has been a government Act on equality between women and men;
- This Act mainly relates to working life – all companies with more than 10 employees must have a plan for gender equality;

- There is an “office of the equal opportunities-ombudsman” whose job it is to monitor the implementation of the Act.

The initial hypotheses for this research are that an unequal gender system affects both men’s and women’s health in a negative sense, and that addressing this imbalance would lead to improvements for both sexes. It is also hypothesized that the current gender system depresses the production of goods and services, and a more gender equal society could positively influence economic growth.

The first part of this research involves a register study built upon data from national databases. The register study comprises 11000 companies and their employees. The data collected are position in the company, income, sick leave and parental leave. The subsequent step will be to administer a questionnaire to 3000 individuals selected from the companies.

The questionnaire will explore the division of unpaid household work, self-rated health and self-rated gender equality.

It is necessary to incorporate both the paid and the unpaid work in the analyses in order to get a complete picture of workload and stress in relation to health.

Contact: Ann Öhman

Sick building syndrome in Sweden

The Office Illness Project in Northern Sweden was finalised in 1994. It comprised a questionnaire study of the Sick Building Syndrome (SBS) and skin symptoms related to Video Display Terminal (VDT) work among 6000 office workers. Using this study as a base, two case-referent studies were conducted – one focusing on SBS and another on skin symptoms in VDT users. Taking potential confounding factors such as gender, age and psychosocial work-load into account, there was an exposure-response relation between risk of SBS symptoms and ventilation rate. This gave strong support to the hypothesis that SBS-symptoms are caused by exposure to airborne chemicals.

Continuing research in this area is focusing on chemical risk factors of SBS symptoms and on the natural history of SBS symptoms and VDT related skin symptoms.

A new project focusing on chemical exposure is soon to be finalised. In order to get information for the planning of a new case-referent study, a pre-

study was conducted to find the variability in chemical exposure in office workers. The results showed that for most chemicals the variability is greater between persons than among buildings and that men and women have different exposure patterns. Another prerequisite for the case-referent study was to find the optimal adsorbent for sampling indoor airborne volatile organic compounds. An analysis using partial least squares discriminant analysis (PLS-DA) identified which adsorbent best discriminated cases from referents. Based on chemical data from the best adsorbent, the case-referent study is now being analysed in collaboration with The Swedish Polytechnic, Vasa, Finland. Researcher Bo Glas will present his PhD thesis in 2008.

With the aim of developing better care and action programmes for patients with the above “environmental illnesses,” our studies focus on personal, psychosocial and environmental prognostic factors. We are working in an interdisciplinary project with colleagues from Occupational and Environmental Medicine, Dermatology & Venereology, the Department of Sociology, the Department of Psychology, Family Medicine and the Department of Odontology, all at Umeå University.

For comparison, a similar follow-up study of patients with a well-recognised environmental illness, hand eczema, has been undertaken. Follow-up results from patients with “hypersensitivity to electricity” have shown that - there is a large subgroup of patients with “VDT related skin symptoms” and with quite normal findings concerning self-image and coping resources. The medical and social prognosis in this group is favourable in comparison with a smaller subgroup of patients with perceived “hypersensitivity to electricity”. This subgroup has a larger number of symptoms that they attribute to electricity in general. In particular women in this group have deviant findings with regard to self-image and coping resources.

Our follow-up studies on patients with SBS shows that the level and severity of symptoms decrease over time, although nearly half of the patients claimed that symptoms were more or less unchanged after 7 years or more. Twenty-five percent of the patients were on the sick list, and twenty percent drew a disability pension due to SBS symptoms at follow-up. The risk of having no work capabilities at follow-up was significantly increased if the time from debut of

symptoms to the first hospital or clinic visit was more than one year. The medical and social prognosis in this group is in between results from patients with “VDT-related skin symptoms” and patients with “hypersensitivity to electricity”. Ninety-two percent of the patients at follow-up were woman and eight percent were men.

Contact: Berit Edvardsson

Nickel allergy

Nickel allergy is a common cause of hand eczema and is usually induced by ear piercing. Previous findings indicate that straightening irregular teeth with metal braces containing nickel may prevent the induction of nickel allergy.

A case-referent study of nickel-sensitised teenagers and referents has been undertaken in Umeå and Örebro. Nickel allergy was verified by testing, and previous use of braces and skin piercing was recorded. Preliminary results show that the prevalence of ear piercing among girls has not increased over recent decades. Among boys, however, there is a marked increase. Piercing of locales other than the ear lobes has increased in both girls and boys. The prevalence of nickel allergy in our population is 15% among girls and 4% among boys. Our findings support previous results indicating that dental braces may induce tolerance to nickel. Two articles are published, one is submitted and one is in manuscript. Researcher Ronny Fors will defend his PhD thesis in May 2008.

Contact: Berndt Stenberg

The ultimate goal – prevention of ill health

Social patterning of prevention

In order to reduce the high incidence of cardiovascular diseases and diabetes mellitus, the County Council of Västerbotten decided to start an intervention programme in 1985. This programme has now been running for 23 years and at the end of year 2007, almost 113 000 health screenings have been performed. Approximately 28000 people have so far participated in a 10-year follow-up. The VIP programme was designed to combine a population strategy with efforts to meet, examine and give individual advice to people when they were 40, 50 and 60 years of age. Using the

primary care system as a partner, the programme conducted systematic risk-factor screening and offered counselling by its family medicine providers.



Previous studies have confirmed that there was no social selection bias when comparing participants and non-participants. During the last decade, VIP data have been actively used for epidemiological research, development of new preventive methods in primary care, health economic evaluations, and county council health planning purposes.

With regard to primary care oriented epidemiological research, focus has been on developing new preventive methods to integrate prevention into everyday practice. Four parallel research projects are addressing these issues:

- One is focusing on early predictors for type 2 diabetes, using VIP data and primary care records. This prospective case-referent study includes 237 cases who did not have diabetes at the VIP screening but were subsequently diagnosed with type 2 diabetes after a mean time of 5 years, and 473 referents who were free from diabetes during an observation time of 8 years. The study aims to describe early perturbations during the course of type 2 diabetes. Associations between biological markers, socioeconomic factors and lifestyle and type 2 diabetes have been evaluated. Results show that individuals who are at high risk for future type 2 diabetes can be identified by measurements of three simple clinical variables: BMI; fasting glucose; and glycated haemoglobin (HbA1c). The study also shows that stress at work, measured by the Karasek demand/control model, and social support, measured as weak emotional support, also increase the risk of type 2 diabetes among women. A
- The second research project is attempting to increase knowledge about long term tobacco use in a middle aged Swedish population, and especially how to they manage to quit smoking and the role of snus in that process. Preliminary data indicate that the role of moist snuff might be less important than tobacco producers' claim. It is anticipated that this research will add knowledge that can support primary care staff in their ambition of reducing the risk of acute myocardial infarction (AMI) and chronic obstructive pulmonary diseases.
- A third project aims to develop a risk equation, predicting the 5- and 10-year risk of developing CVD (stroke or AMI), when taking both traditional and social factors into consideration. Health counselling is often quite challenging, and its outcome depends on the interaction between the staff and the individuals. It is well known that risk scores based on CVD prevalence from the 1970s do not fit particularly well. With this research programme it will be possible to develop more accurate estimations based on data from the 1990s. For the time being, a core predictive model on myocardial infarction and another model on stroke has been developed, resulting in a separate (validated) risk equation for men and women for both AMI and stroke. Preliminary analysis comparing the SCORE risk prediction and actual outcome in Västerbotten County indicates the CVD mortality risk to be

significantly lower in the Västerbotten population, implying that guidelines might have to be adjusted accordingly.

- A fourth project focuses on the impending obesity epidemics that are reported worldwide. Instead of looking at the obese population and studying possible strategies to reduce weight, we will focus on identifying and characterising individuals who manage to maintain weight in middle-age over a 10 year period. We focus on the middle-aged individuals who neither gained nor lost weight in their adult lives, the so called “primary weight maintainers”. According to a previous study we conclude that there is a need to broaden the educational efforts to include individuals who have previously not being regarded as high-risk individuals, i.e. the young, the healthy and the lean. A qualitative study has started in order to increase knowledge about maintainers perceptions. These data will in a second step serve as basis for a more comprehensive quantitative study, where a sample of the VIP population will be addressed.

Since the mid 1990s, the Northern Lights Working Group research collaboration has been developed between our department and Bassett Research Institute, Cooperstown, New York and the Department of Preventive and Community Medicine, University of Rochester, New York. The collaboration was initially focused on comparing small-scale community interventions in Sweden and the US. The main purpose of this collaboration is to explore the possibility of learning more by comparing programme outcomes between different countries. The collaboration has continued as an inter-country comparison regarding self-reported health and CVD risk factors, and in a 10-year study comparing obesity development in a US and a Northern Sweden panel. As a continuation of this work we now join forces with regard to weight maintenance research and the plan is to perform similar studies on weight maintainers in both Sweden and the US.

We are involved in the MONICA-project, under the auspices of WHO, for the systematic monitoring of cardiovascular diseases. A follow-up of all persons screened in 1986,

1990 and 1994 was carried out during 1999, comprising more than 5000 individuals. Together with the 2004 cross section, there have now been a series of five repeated random cross-sectional studies and three panels (1986/99, 1990/99 and 1994/99), with possibilities to differentiate between cohorts and to identify cardiovascular risk indicators. The follow-up of individuals participating in the previous MONICA cross-sectional surveys will allow for further analysis of the role of perceived health in predicting future risk factor load, and to study the interaction with socio-economic factors.

Contact: Lars Weinehall

Nationwide diabetes registration

In 1977, a nationwide incident case register covering childhood diabetes in the age group 0-14 years was set up in Sweden. The register is coordinated and continuously validated by the Division of Paediatrics in collaboration with us. It forms the basis for population-based studies for the identification of genetic, immunological and environmental risk determinants of the disease.

In 1983, a similar nationwide register on diabetes for the age group 15-34 years was initiated – the Diabetes Incidence Study in Sweden (DISS). New cases of type 1 and type 2 diabetes, and secondary diabetes mellitus, as well as unclassified types of diabetes, are reported by all paediatric, medical and endocrinology departments and public health centres in the country. By December 2006, 9500 cases (approximately 400/year) had been reported, of which 73% were type 1 diabetes, 17% type 2 diabetes, 1.3% secondary diabetes and the remaining 9.1% were unclassified.

For the period 1983-1998, the two diabetes registers were merged to enable estimation of the cumulative incidence of type 1 diabetes. Based on 11,751 cases, the cumulative incidence at 35 years of age was 748 per 100,000 for men and 598 per 100,000 for women. During the 16-year period, the incidence of type 1 diabetes did not increase, while the median age at diagnosis decreased.

Through record linkage between DISS and the nationwide Cause of Death Registry it has been possible to identify deaths among the patients and get information on cause of death. With an average follow-up of 8.5 years, resulting in 59,231 person-years, there were 159 deaths (Waernbaum et al 2006). Diabetes was reported as the

underlying cause of death in 51 cases (32%), and as a contributing cause of death in another 42 cases (26%). The expected number of deaths based on the Swedish population was 65.1, thus the standardised mortality ratio (SMR) was 2.4.

The prevalence of complications was followed up in the 1987-88 cohort. Out of 806 cases reported to DISS in 1987-88, the prevalence of retinopathy could be assessed in 627 cases and, out of these, retinal photographs were available in 523 cases. The prevalence of retinopathy 9 years after diagnosis was 39% (mild 33%, moderate non-proliferative 4.8% and proliferative 1.8%). It was possible to assess nephropathy in 469 cases and the prevalence was 6.6%. Compared with patients with type 1 diabetes, those with type 2 diabetes tended to have an increased risk of renal involvement.

Obesity is an increasing public health problem. Body mass index increased significantly between 1983 and 1999 in incident cases of type 1 and type 2 diabetes, from 21.2 to 22.5 and from 27.4 to 32.0, respectively

Contact: Lennarth Nyström

Screening for breast cancer

Few secondary interventions have been as carefully evaluated, and perhaps therefore as questioned, as mammography screening. An overview of the four randomised controlled trials (RCTs) that have been performed in Sweden was conducted by our department in order to evaluate the benefits of mammography screening in relation to breast cancer mortality. The four cohorts, consisting of 282,777 women aged 40-74 years at randomisation, have been followed-up three times, through 1989, 1993 and 1996, and a final follow-up through 2004 is ongoing. The last follow-up through 1996 showed that, with a median trial time of 6.5 years and a median follow-up time of 15.8 years, there was a significant 21% reduction of breast cancer mortality in the group invited for mammography screening. Based on the results from the RCTs, the National Board of Health and Welfare issued guidelines for mammography screening in 1986. All county councils in Sweden invite women aged 50-69 for mammography screening every second year and about half of the county councils also invite women aged 40-49 and 70-74 years.

New approaches have been applied to be able to evaluate whether the nationwide service-screening programme is as effective as indicated by the RCTs.

In collaboration with the Oncology Centres in Umeå and Stockholm, the effectiveness of the service-screening programme in the age groups 40-49, 50-69 and 70-74 years has been evaluated. Different approaches had to be applied to the three age groups to be able to identify appropriate comparison groups. With a mean screening interval of 20 months and a mean follow-up of 7 years, the reduction in breast cancer mortality in counties inviting women 40-49 years as compared with counties not inviting women 40-49 years was estimated at 9%. As all counties in Sweden invite women 50-69 years the evaluation of the efficacy in that age group had to be made between counties that started service-screening early (1986-87) and counties starting late (1993 onwards). With a mean individual follow-up time of 8.4 years, the non-significant reduction in breast cancer mortality was estimated at 16%. The efficacy of also inviting women 70-74 years to screening was evaluated using the same design as for the age group 40-49. With a mean follow-up of 10 years, the reduction in the excess mortality due to breast cancer was estimated at 24%.

With support from the American Cancer Society we applied new analytic methods for the evaluation of incidence-based breast cancer mortality. Using individual screening history data representing approximately 45% of Swedish women (screening history for 542,187 women in the pre-screening and 566,423 women in the screening epochs) we were able to estimate the population size that needs to be screened in order to save one life in nine counties in Sweden. Regardless of year of diagnosis, there were a total of 6231 deaths due to breast cancer in the period of study as a whole. Of these, 4778 were incidence-based deaths in the two epochs, i.e. death among cases diagnosed within either the pre-screening or screening period. Data were analysed using Poisson regression and adjusted, when necessary, for self-selection bias, contemporaneous changes in incidence, and changes in mortality independent of screening. There was a significant 45% reduction in incidence-based breast cancer mortality in the pre-screening epoch (relative risk, 0.55; 95% CI: 0.51-0.59). After adjusting for self-selection bias, there was still a significant 43% reduction in incidence-based breast cancer mortality

associated with screening (relative risk, 0.57; 95% CI: 0.53-0.62).

Contact: Lennarth Nyström

Personal health documents in the county of Dalarna

Personal health documents have been available since at least the 1940s. Such records focus either on disease and cure, such as traditional medical records, or health and prevention, such as antenatal records. Personal health documents have been used worldwide in antenatal and child care. The purpose of such records has been manifold, but the most interesting is perhaps patient empowerment. Controlled studies in antenatal care have shown positive results regarding empowerment variables. There are few studies examining such records used by adolescents, or non-pregnant adults.

In the county of Dalarna, Sweden, a personal health document, "My Book About Health", has been developed, targeting the adult population. Effects on behavioural change have been reported following distribution at primary health centres, at work-sites, and by mail. The cost-effectiveness and feasibility of distribution have been compared, and community health nurses have been interviewed about their experiences. A version of the document can be found at <http://www.ltdalarna.se/minbokomhalsa>.

A health document for adolescents, 12 to 16 years of age, has also been developed. It consists of a folder with seven different booklets, named "VIP – Very Important Person". A school-based controlled study started during 2003, and 1-year and 3-year results of the intervention are being analysed. Parts of the health document can be viewed at <http://www.ltdalarna.se/vip>.

Contact: Lars Jerdén

Stress-related problems among children and young people

Self-reported stress-related, psychosomatic or "socio-somatic" problems among children and young people, especially teenage girls, are increasing in Sweden. Many of the girls also report negative body image and eating disturbances. Biological, emotional, socio-cultural and gendered processes on the

individual, group and societal level can be involved. However, there is a lack of research in this area. There is a need for both epidemiological and longitudinal studies, as well as for more explorative qualitative studies that "give voice" to young people, or studies that discuss the problems in relation to theoretical frameworks. There are also few studies on health promotion and preventive models for use in schools or School Health and Youth Health Centres for teenage girls and young women.

In our research project we find it important to listen to and to involve the girls themselves in an interactive research process using individual interviews, focus group discussions, diaries, questionnaires and participant observations. We also apply an explorative and theoretical research approach in order to discuss questions such as "why girls?" and relations between processes such as "doing gender" and "doing health". Accordingly, we are interested in socio-cultural perspectives on body image, well-being and health – the embodiment of social conditions, relations and processes. For this purpose we have constructed a theoretical framework consisting of a combination of theories from body-sociology, phenomenological physiotherapy, gender science, modern stress and trauma research, and health promotion.

The aim of this study is two-fold: 1) to increase knowledge about teenage girls'/young women's experiences and perceptions of stress-related health problems, including their body-experiences; 2) to develop models for health promotion and stress-prevention within School Health and the Youth Health Centre in Umeå.

This is a collaborative research project between the School Health Organisation in Umeå Municipality, The County Council in Västerbotten and Umeå University.

Contact: Maria Wiklund

Food habits and nutritional status among adolescents in Cameroon.

Adolescence represents one of the most important developmental periods in life due to the maturing process (reproductive health) and rapid growth, both cognitive and physical. This important period serves as a gateway to adulthood and offers a unique opportunity to focus on health promotion and preventive methods that could

impact the individual's health, both currently and throughout life.

The aim of the present study is to assess food intake and nutritional status of adolescents in urban and rural areas in Cameroon by using anthropometry and dietary questionnaires.

From previous studies we have found that frequencies of consumption of meat, vegetables, cereals, milk products, and junk foods were significantly higher in urban than rural adolescents. Frequency of in-between meals was higher in urban than rural adolescents. Arm muscle area (mm²) and waist/hip ratio were significantly higher in rural adolescents compared to their urban counterparts (3554 vs. 2802 and 0.82 vs. 0.79; respectively).

Contact: Léonie Dapi Nzefa

Health promoting health services

One of the eleven targets in the national public health policy is "A health and medical service that more actively promotes good health". Improved population health must be an explicit goal of the health services. The basic idea is that health care will be permeated with a health promoting and preventative perspective, and this way of thinking will become a natural part of all care and treatment. This orientation towards health poses a challenge to the health care service to form strategies that develop the health-promoting role. The aim of the research project is to study the opinions of health care professionals, in order to get their views on concepts of health and health promotion, and to develop greater understanding of the obstacles and opportunities for health-promotion in practice. The methodology is both qualitative and quantitative. In 2006, a questionnaire based on information provided by health professionals in focus group discussions was answered by a stratified sample of assistant nurses, dieticians, midwives, nurses, occupational therapists, physical therapists, physicians and psychologists (n= 1200). The questionnaire study will enable an analysis of different perceptions among professionals.

Contact: Helene Johansson

Social capital for Health Promotion

During the last decade "social capital" has become an attractive concept within public health research. The concept is defined in several ways, but within public health the definition by Robert Putnam has proven to be particularly useful. He defines social capital consists as "social networks and the norms of reciprocity and trustworthiness that arise from them". Social capital draws attention to the social determinants of health, and is mainly used to explain social inequality in health. However, knowledge about the role of social capital in health promotion is still lacking. The overall objective of this research project is to investigate the prerequisites, barriers and prospects for using social capital as a resource for community-based health interventions. Two studies utilise data from an explorative qualitative case study in a small community in northern Sweden. The first aims to describe existing social capital in a case community with high civic engagement, to understand how Putnam's conceptualisation can serve as an analytical frame in understanding the high civic engagement, and to discuss how sociological views of social capital may add to an understanding of the role of social capital for community health promotion. The second study aims to develop an understanding of the mechanisms that are crucial for mobilising social capital at the community level. The third and the fourth study are based on a "social capital survey", distributed to 15,000 individuals in northern Sweden. The third will study the distribution of different forms of social capital at neighbourhood level, and determine the association between different forms of community social capital and self rated health. The fourth study will investigate gender aspects on access to different forms to social capital, and study the associations between self rated health and different forms of social capital for women and men.

Contact: Malin Ericsson

Preventive actions for the elderly

All over the world the number of elderly people is increasing. The fact that this development is worldwide makes reducing illness among the elderly even more important. “Shall we treat illness when it occurs or try to prevent illness from occurring?” is a well-known rhetoric question. When the population is ageing, the issue of preventive actions becomes even more important. Different efforts have been made to evaluate preventive actions using different health economic methods, but focus on the elderly population is rare. Preventive home visits for the elderly are now being evaluated using various health economic methods. The ongoing evaluation indicates that the visits have had positive effects on health, might even reduce mortality and be cost-effective. A comprehensive cost analysis has found that the costs for the visits were equal to the decreased need for health care and home help. When a cost utility analysis was done this also gave result which motivated to implement this strategy. The research has given the result that preventive home visits now is one part of the governments strategy for elderly care. In Västerbotten most of the municipalities and primary health care canters are involved with preventive home visits.

This research highlight an all-embracing question: Is it worth working with prevention in older age? The question is relevant, not only in a Swedish setting, but also in developing countries. In Vietnam, with a rapid economic development, a major urbanisation has started. This affects the family structure and the importance of how society is organised to take care of an increasing number of elderly in the rural areas. But it also raises questions of how preventive actions can be organised. With in the FilaBavi DSS an on going project aiming to describe the health situation for elderly and also focus on what there is to do.

Contact: Klas Göran Sahlén

Ageing and Living Conditions



Increasing magnitude and awareness of the growing proportion of elderly people raises questions on how living conditions are affected for both the old and the young. Is our society ready to accommodate the growing proportion of elderly people? Will a greater proportion of elderly people be seen as a burden or as an asset to society? Can insights from changes that have occurred in Sweden pave the way for better handling of forthcoming changes in other countries? What can we learn from experiences in other countries and from past experiences? Ageing and its consequences are crucial factors in relation to future living conditions in Sweden, Europe and throughout the world.

This project is characterised by interdisciplinary research addressing the interconnections between ageing, health and living conditions of the elderly – the opportunities of successful ageing.

The relationships between these research themes are influenced by processes at the individual level (biological and cognitive ageing), the population level (demographic, social and economic conditions) and the socio-cultural level (images and constructions of ageing and the old). The research is part of a collaboration between social, behavioural, medical and humanistic sciences, bridging research environments from three faculties.

This project includes quantitative as well as qualitative research approaches and joins methodological competences from different disciplines. The data sources, including the several world-unique, mainly longitudinal, databases (covering more than 400 years) developed and located in Umeå are:

- DDB – including the largest historical population database in Europe;
- BETULA - longitudinal data on cognition, health and ageing, 4500 individuals, 1988 to date;
- ASTRID – individual spatial and social-economic data for all Swedes, 1960 – 2003;
- INDEPTH - health data from various third world field sites;
- VIP – cross-sections and panels (95.000), health and socio-economic data, 1985 to date;
- DAUM – documented historical interviews with the elderly.

Due to the uniqueness and variety of data sources, this project brings together research on contemporary Sweden with studies on historical data and third world contexts, and enables the comparative analysis from a variety of time-space contexts, including indigenous sami communities.

The aim is to develop interdisciplinary research focusing on ageing and living conditions in different time-space contexts based on three overall research questions:

1. How is population ageing influenced by demographic processes?
2. How is participation of the elderly in society affected by their health and cognitive function as well as by societal demands and values?
3. What are the determinants of successful ageing - in terms of social, economic and health factors - for men and women?

One further aim is to develop new perspectives by strengthening the comparative analyses, including empirical investigation in different geographical, historical and cultural contexts, e.g. urban and rural areas in historical and contemporary Sweden, Sámi communities, immigrant groups and communities in developing countries today. In these different contexts, the intersections between age, ethnicity and gender will be scrutinised.

Contact: Lars Lindholm

Multi-disciplinary gender research

Several of the projects presented in this chapter have a gender perspective (For specific projects, see above). Gender research, or public health research with a gender perspective, has gradually become an important and integral part of the research that is being conducted within our division. That in turn has its roots in long-running development of gender research at Umeå University. Gender research has existed for almost 30 years at the university and is now profiled among the university's central research strategies for the years 2004-2007. One of the most recent developments is the formation of an institutional framework for gender research – Umeå Advanced Gender Studies (UAGS). UAGS embraces all faculties at the university and is therefore broad and multi-disciplinary. In 2006, UAGS was appointed centre of research excellence by the Swedish Research Council and received a considerable research grant.

Gender based violence research and networking

Within the UAGS framework, public health researchers from our division engage in research on gendered health issues as well as gender-based violence. The area of gender-based violence harbours research on violence against women, within a range of disciplinary milieus, including social sciences, education, arts and medicine. This research is characterised by interdisciplinary approaches and, in some cases, close relationships with policy makers. This research is chaired from our division. Some projects focus on legal, economic and social consequences of violence in a number of different settings. Other projects study constructions of male perpetrators, female victims, and violence in legal texts, as well as the health effects of violence, within Sweden as well as in several other countries. Some challenges within this area are: the risk of reproducing notions of traditional gender power structures; how to theorise and study violence against women in different ethnic communities; how to theorise violence against non-heterosexual persons, in intimate relations or as hate crimes.

Epidemiology and Public Health Sciences is part of an international research network for developing research strategies and research methodologies on violence against women (VAW). The network is a collaboration with Linköping and Uppsala universities. Five senior researchers and five PhD students from the division are members of the network. The network had its first international workshop in Uppsala. Researchers from eight countries participated.

Mainstreaming gender in demographic surveillance

This project aims to research gender issues in four INDEPTH demographic surveillance sites: Iganga DSS (Uganda); Fila Bavi DSS (Vietnam); CIDS DSS (Nicaragua); and Ujjain DSS, India. The project is funded by SIDA/Sarec and includes international research collaborations between the four demographic surveillance sites and the Swedish public health departments at Umeå University and The Karolinska Institute. An initial pilot study

is underway using a cross-over research design.

Centre for gender studies at the Faculty of Medicine

The centre is a platform for gender researchers as well as for other researchers who are interested in gender perspectives on health and disease. Researchers from our division have been actively engaged in forming the centre and are part of the steering committee. The aim of the centre is to strengthening gender research at the medical faculty through a multi-disciplinary platform.

Finally, a contributor to the gender research milieu at our division is The National Graduate School of Gender Studies, hosted by Umeå University together with Mid Sweden University, the University of Kalmar and the University of Gävle as partners. At present, one of the PhD students at Epidemiology and Public Health Sciences are enrolled in the national graduate school.

Contact: Ann Öhman

3. Training at Umeå International School of Public Health



An integral component of the development of the international collaborations has been the International Public Health training, starting from ad hoc training courses and workshops that formed a springboard for the research projects. What started as short courses in epidemiological methods has grown into a full MPH programme taught in English and with major recruitment from abroad, mainly from developing countries. Since 2001, this Public Health programme has had the status of an International School within the university. With its strong research orientation, the programme has retained its role as a channel into research training.



Examination of the 2007/2008 Master students

Master of Public Health Programme

Entering 2007, the department was faced by new challenges: a national evaluation and the decision that Swedish universities should

convert all training to follow the principles of the Bologna process.

The evaluation was part of a routine activity by the National Agency for Higher Education to evaluate all academic programmes once within a six-year cycle. The 2006-7 evaluation in the field of Public Health, including both post-and undergraduate levels, came in the last year of the first cycle. In the first stage of the evaluation, the entire UISPH staff were engaged in a collective self-evaluation process which resulted in a 30 page document covering a large number of headings supplied by a peer review group of evaluators, including colleagues from Nordic universities and student representatives. The evaluators visited Umeå for interviews with students, faculty and other staff.

The report from the evaluators was presented in late February, 2007. The overall conclusions were that we are a good training environment, our teachers are highly competent and the teaching is well grounded in research. The evaluators also commented on how well our international students are received and the support they get during their year in Umeå. Dominating among the recommendations for improvement were a number of points that we were already addressing as part of the planning for a new, international two year masters' programme.

The last stage of the Bologna process, to actually implement the new principles in all academic training, was initiated in Swedish universities during early 2006, with the aim of launching the new programmes in the autumn of

2007. The UISPH masters programme was revised and expanded to a programme with three lines of specialisation – profiles, epidemiology, health economics and social theories in public health. The structure of the programme has been reorganised to give a clear progression in the studies.

The Umeå MPH programme now is a two-year programme, 120 ECTS (European Credit Transfer and Accumulation System). Of the four semesters, three are dedicated to course work (90 ECTS) and one (30 ECTS) to thesis research work.

Students can follow one of three profiles: Epidemiology, Health Economics and Social Theory for Public Health, respectively. All three profiles share a common core of course work, in all 45 ECTS. In most cases, common core courses should be entirely finished within the first year.

Besides the common core, each profile includes compulsory profile courses, a total of 30 ECTS. All students also take 15 ECTS of elective courses, which can be either courses from other profiles or courses from other departments or universities.

All Profiles

Common core courses (45 ECTS)

Global Public Health – an introduction
Biostatistics, part 1
Epidemiology, part 1
Epidemiology, part 2
Qualitative Methodology 1
Global Public Health – policy and practice

We encourage students to identify and plan their thesis topic in advance, if possible in collaboration with their employers or with other organisations in their home country. The process of thesis planning is initiated in the first semester, but not finalised until a student has completed all the research methods courses included in the common core of the programme.

Depending on choice of profile and electives, the thesis work can either be done full time in the last semester or as part time research during a longer period. Defence of the thesis is always at the end of the second year. Most of the compulsory courses should be completed before beginning the actual research work, but planning should start as early as possible.

The Epidemiology Profile

Common core courses (45 ECTS)

Profile courses (30 ECTS)

Advanced methods in Epidemiology
Biostatistics, part 2
Evaluation in Public Health

Public Health Informatics or
Social Epidemiology or
Chronic Diseases Epidemiology

Elective courses (15 ECTS)

Public Health courses from UISPH or elsewhere

Thesis (30 ECTS)

The Health Economics Profile

Common core courses (45 ECTS)

Profile courses (30 ECTS)

Advanced Topics in Health Economic Evaluation Methods
Economic Analysis of Health and Health Care
Evaluation in Public Health

Health Economic Evaluation Methods

Elective courses (15 ECTS)

Public Health courses from UISPH or elsewhere

Thesis (30 ECTS)

The Social Theory for Public Health Profile

Common core courses (45 ECTS)

Profile courses (30 ECTS)

Social Theory in Public Health and Medicine 1
Social Theory in Public Health and Medicine 2
Qualitative Methodology 2

Social Epidemiology

Elective courses (15 ECTS)

Public Health courses from UISPH or elsewhere

Thesis (30 ECTS)

Moving on to the new two year programme we can summarise the achievements in the old one year version. From the first student to finish in 1996, 279 students have completed their studies for the degree, 27 in the last year, 2007. The geographical diversity has been impressive, with 54 nations represented at some time.



Public Health class 2007/2008

For the first batch of students in the new programme, we received 275 applications, 254 of which from outside Europe. This was only a slightly smaller number than previous years, which was reassuring. A major concern in planning for the Bologna master had been that the candidates from developing countries that have formed our major target group would be

reluctant to undertake two years of study abroad, in a country with high cost of living. 80 applicants were accepted out of which 40 came to begin their studies. This was approximately the same drop out rate between acceptance and start as previously, again reassuring us that the new programme is viable.



Sources of Master of Public Health students 1991-2006

Summer course: Epidemiology and Field Research Methods

Since 1988 our department has offered a research methodology course in Epidemiology and Field Research Methods. Financial support from Sida/SAREC has made it possible for 12 research students/researchers within different bilateral research collaborations to participate in the course, held in June each year.

The course has become an important research training base for health researchers, health planners and practitioners from the global network that Sweden is part of. In 2007, we received

more than 75 applications for the 24 available course places. We strive for an international and multidisciplinary attendance where the participants' own experiences are part of the curriculum. Quantitative and qualitative methodologies are practically applied to analyse authentic data from our research collaborations. The course is given high priority and the team of teachers/facilitators always includes colleagues from the bilateral collaborations out of which the data material emanates.

We admitted 24 participants for the summer course in 2007. Five of the participants came from Sweden. Other countries represented were, Ethiopia, Tanzania, Vietnam, Laos, Iran, Palestine, Russia, Cambodia, Uganda and USA.



The summer course participants and teachers 2007

Research training

We offer degrees in three PhD subjects *Epidemiology and Public Health*, *Public Health* and *Family Medicine and Epidemiology*.

Presently (Dec 31st, 2006) 38 research students are registered at the department, 14 men and 24 women (Table 5). Seventeen PhD students have been recruited within international research collaborations, while 21 are Swedish research students. In the period 1987 - 2006, 47 PhD theses (23 by women) and 7 licentiate theses (6 by

women) were defended at the department. Twenty-two of the PhD theses and 5 of the licentiate theses were defended by international research students.



Doctoral student's day May 2007

Several of the research students at the department are also affiliated with another department, e.g. a clinical department, or to a university in another country. Corresponding representation of two or more departments is often found among the advisors to the research students.

Our unit is responsible for a major part of the basic research-training course of the Medical Faculty, and since 1997 we have also offered an advanced course in applied biostatistics with computer applications. Research students often also use the yearly summer course and the courses included in the Master of Public Health programme as part of their research-training.



Activities at IKSU during the doctoral student's day

Single courses

All courses within the MPH programme can be taken as separate courses by students not wishing to take the whole MPH degree. Priority is given to those studying for the degree, but a number of non-programme students are always accepted as well. This is especially true with regards to the research method oriented courses, such as *Qualitative Methodology*, *Epidemiology* and *Biostatistics*, as we see it as essential that these subjects are accessible to research students in adjoining disciplines.

Biomedical programme

During the first semester of the 'Biomedical programme', our unit is responsible for a 5-point course in *Epidemiology and biostatistics*. In the autumn 2007 course, 32 students participated.

4. ADVOCACY

Consultancy and advisory functions

We have participated in public health processes through membership of a number of local, regional, national and international bodies, and local and regional peer-review groups on research and development.

Researchers from our department are currently scientific public health advisers to national boards and institutes and referees for a number of scientific journals. We were key advisers behind the Västerbotten County Council Public Health Policy Programme. On a regular basis we train local and regional political assemblies as well as patient organisations and public associations. We participate annually in more than one hundred public health education activities, both for basic public health training and dissemination of public health research.

We are also engaged in various consultancy and advisory functions. Some of these missions during 2006 are shown in Table 7 below.

Since 1992, we have administered the Sida-allocated Minor Field Study (MFS) scholarships given to Swedish professionals/students within the health sector or health related fields. These

scholarships will make it possible for them to perform a small study during a two-month period in a developing country. In 2006 six such grants were administered by our department. Reports from all the field studies are now being published in a report series.

Scandinavian Journal of Public Health

We have hosted the Scandinavian Journal of Public Health during 8 years 2000-2007 with Stig Wall as Chief Editor, Urban Janlert as Associate Editor, Maria Emmelin as Managing Editor and Lena Mustonen as Editorial Assistant. As of 2008 the editorial office has moved to Copenhagen and the Danish Public Health Institute with Finn-Kamper Jørgensen as the new Chief Editor. The change in leadership coincides with Sage taking over as publisher (<http://sjp.sagepub.com>). We feel very confident with this turnover and wishes Finn and his new team all the best in their endeavour to continue developing the journal as a forum for disseminating and sharing Scandinavian public health research and policy. A reprint of Finn's first editorial is shown below.

Scandinavian Journal of Public Health, 2008; 36: 1–2



EDITORIAL

New editor and new publisher for the *Scandinavian Journal of Public Health*

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As we enter 2008, the *Scandinavian Journal of Public Health* (SJPH) enters a new era. SJPH is now published eight times a year. This issue also sees the introduction of a News Section at the back of the journal, beginning with policy statement reviews from the Nordic Ministers for Health on the five most important political decisions or events in 2007. The first contributions are from the Finnish and Icelandic Ministers for Health. I also intend to introduce photographs of authors in the journal from late 2008 or 2009.

SJPH is an international forum of Nordic as well as international public health research and policy.

SJPH has a vision to:

- Publish public health research of good quality;
- Contribute to the conceptual and methodological development of public health;
- Contribute to global health issues;
- Contribute to news and overviews of public health developments and health policy developments in the Nordic countries;
- Reflect the multidisciplinary of public health;
- Contribute to an open and better dialogue between researchers, practitioners, administrators and policy-makers of public health.

The professional key words of the journal (earlier listed on the front cover of the journal) are:

- Epidemiology;
- Social medicine;
- Health services research;
- Health economics;
- Prevention and health promotion;

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- Public health policy;
- Medical sociology.

We also encourage articles within the professional fields of anthropology and psychology of health, and within health policy and healthcare management. We accept studies using quantitative as well as qualitative methodologies.

The Nordic countries are world-famous within the research community for their ability to conduct register-based health- and welfare-oriented population studies. Legislation in most countries in the Nordic region allows researchers to carry out studies linking various population registers by means of the individual personal identification number allocated to each person. This provides a unique source of data, which is invaluable for the public health community. I will be giving high priority to the publication of such linked register-based research as part of the editorial policy.

SJPH accepts the following types of article:

- Original articles.
- Review articles.
- Design articles. Very few journals accept such articles, but some years ago the Editors felt that we missed this category, giving the researchers a fair chance to explain, even in detail, the design of a larger study, to be followed later by result-oriented articles. I am encouraging researchers to consider this possibility when, for example, a new important register has been created or when a broad epidemiological study or cohort study has been designed.
- Short communications and debate articles.
- Letters to the Editor.

2 F. Kamper-Jørgensen

- Contributions to the News Section.

The year 2008 is a year of many changes for the journal, as we also begin publishing the journal with SAGE. The Nordic Public Health Associations and I feel that this new and exciting partnership will benefit the journal in many ways, including providing a considerable volume of complementary content, excellent visibility of our content within the relevant communities, and effective dissemination of our content via SAGE's online platform, developed and hosted by HighWire Press.

We are also delighted with the increase in the number of issues a year from six to eight. The time from acceptance of an article to its publication in the journal should, hopefully, be gradually reduced during 2008 and 2009. It is also my hope that the present rejection rate of about 70% can be somewhat reduced, as articles of good quality have in the past been rejected due to lack of space. I will be maintaining the editorial aim to return the editorial decision on an article accompanied by review comments within a 3-month period.

While we hope to reduce the amount of time that it takes for your article to appear in an issue of the journal, we are also aiming to publish your article online approximately 2 months after final acceptance. The articles will appear on SAGE's OnlineFirst, and further details can be found on <http://sjp.sagepub.com> on the SAGE Journals Online platform. This platform also provides a user-friendly and fully searchable homepage for the journal. One can keep up to date with the latest developments in SJPH by signing up to the free Table of Contents alerts, which allows you to link to abstracts and through to the full text versions of the articles.

Over the next year, I will also be introducing author information text boxes that will help inform authors and readers about copyright issues and other

relevant matters. I would also like to remind PhD students that they can continue to use their published articles in their dissertations without violating any copyright regulations, provided that they apply for permission from Sage. Full details on this can be found at: <http://www.sagepub.co.uk/journalEditors.nav>

SJPH continues its principle of encouraging authors to submit relatively short articles. Articles exceeding six printed pages must pay a so-called page charge prior to publication. Articles that are too long will be returned to the author for abbreviation.

After 8 years, Professor Stig Wall (University of Umeå, Sweden) will be stepping down as Editor of the journal. Professor Wall has developed SJPH into a high-quality and well-regarded journal, and I would like to thank him for all of his hard work and dedication to the journal over the years. For the past 8 years, I have worked alongside Professor Wall as the Danish Co-Editor, and I look forward to stepping into the role of Editor and carrying on Professor Wall's excellent editorial principles.

We will also be saying goodbye to the current Editorial Team in Umeå, Sweden, where for the last 20 years, the editorial office has been located. The Editorial Office is now situated at the National Institute of Public Health, University of Southern Denmark, in Copenhagen, where I am Director. I would like to take this opportunity to thank everyone in the Umeå Editorial Office for their years of dedication to the journal.

A good international journal of public health depends on good contributions from good researchers and other persons interested in public health development. We are also very dependent on the willingness of reviewers to conduct a critical scientific evaluation of a scientific article, and I would like to thank the reviewers for their kind willingness to contribute so far.



The new Chief Editor, Finn Kamper-Jørgensen, MD, PhD, also Director of the National Institute of Public Health in Denmark and President of the Danish Society of Public Health.

Table 7. Consultancy and advisory functions of staff members

Staff member	Function	Duration
Erik Bergström	Scientific advisor in Child and Adolescent Health for the National Board of Health and Welfare	2006-2009
	Board member of the Swedish Paediatric Association	2000-
Peter Byass	Editorial consultant to the Ethiopian Journal of Health Development	2002-
Kjerstin Dahlblom	Swedish assistant coordinator – UNAN-León - Sida/Sarec Research Cooperation Programme	2006-2008
Curt Edlund	Co-ordinator of a national network in Research of Sickness (SPID)	1999-
Ulf Högberg	Swedish coordinator – UNAN-León - Sida/Sarec Research Cooperation Programme	2006-2008
Anneli Ivarsson	Chair of the Working Group on Celiac Disease, Section of Gastroenterology and Nutrition, the Swedish Paediatric Associations	2007-
	Scientific advisor to the Swedish Society for Celiacs.	2007-
	Paediatric expert of the Adolescent Lifestyle Survey (Leva) in Umeå and nearby municipalities.	2006-
	Paediatric expert of a Health Promotion Child and Adolescent effort (Salut) within the County of Västerbotten	2004-
Urban Janlert	Deputy chairman of SEEC (East Europe Committee of the Swedish Health Care Community) scientific advisory group	2006-
	Chairman for the Swedish Association of Social Medicine	2002-
	Member of the scientific priority committee for the Swedish Council for Working Life and Social Science (FAS)	2005-
	Board member of Umeå Center for Evaluation Research	2000-
Lars Lindholm	Board member of the National Expert Group on A Health Promoting Medical Service, organised by the National Public Health Institute	2003-
Maria Nilsson	Member of the board for the department of Public Health and Clinical Medicine, Umeå University	2004-
	Member of the Advisory Board for the Swedish Government on Drug- and Tobacco policy	2008-
Lennarth Nyström	Member of the Editorial Board of the Central African Journal of Medicine	2001-
	Member of the executive Board of the European Breast Cancer Network	1998-
	Swedish representative in the International Breast Screening Network (IBSN)	1997-
Måns Rosén	Member of the scientific priority committee for public health of the Swedish Research Council	2000-
	Member of the Board of the Swedish Network for Pharmacoepidemiology	
	Member of the Scientific Advisory Board for the Swedish Council on Technology Assessment in Health Care	
	Member of the Advisory Committee to the European Commission for Statistics in the Economic and Social Spheres	
Miguel San Sebastian	Member of the editorial board of the International Journal of Occupational and environmental health	2005-
Berndt Stenberg	Member of the Swedish Contact Dermatitis Research Group	1986-
	Member of the executive group for the Swedish Dermato-Epidemiology Network	1995-
	Member of the executive group for the Swedish Psoriasis Network	2002-
	Country representative in the Council for the European Society for Contact Dermatitis (ESCD) Member of the board for the department of Public Health and Clinical Medicine, Umeå University	
Stig Wall	Board member of the Epidemiologic Centre at the National Board of Health and Welfare	1993-
	Board member of CHESS, Centre for Health Equity Studies, Stockholm	1999-
	Permanent scientific adviser to the National Board for Health and Social Welfare	1987-
	Member of the Scientific Advisory Committee of INDEPTH, the International Network for Demographic Surveillance in Developing Countries	2003-
	Member of the editorial committee for the National Public Health Reports	1994, 1997, 2001, 2005, 2008
	Editorial consultant to the Ethiopian Journal of Health Development	2002-
	Member of the scientific priority committee at The Bank of Sweden Tercentenary Foundation	2005-
Lars Weinehall	Chair of the National Expert Group on A Health Promoting Medical Service, organised by the National Public Health Institute	2003-
	Medical coordinator for the Västerbotten Intervention Program	1985-
	Board member of the Västerbotten County Council Reference group for implementation of the National Public Health Policy	2004-
	Member of the Swedish Nutritional Foundation's Nutrition Council	2006

5. PUBLICATIONS

Original articles

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