Annual Report 2011

Umeå International School of Public Health

Epidemiology and Global Health

Printed by Print & Media, Umeå, Sweden 2012

Preamble

By means of this report we summarize Epidemiology and Global Health's 25th anniversary year. It presents continued strong achievements in research and research training as well as in public health education. This Annual Report underlines in particular our first successes in EU applications, taking us to a new level of funding in the international scientific community. One of the two applications the EU has supported aims, in collaboration with the INDEPTH network, to strengthen research capacity regarding social determinants of health in Asia and Africa. The second focuses on Dengue fever, where we coordinate an international research consortium on determinants and control of Dengue.

Epidemiology and Global Health, one of Umeå University's strong research environments, consolidates in these successes its international research profile as a world-leading research hub in the its field. The assessment that our research environment works to high international standards was also confirmed when FAS at its mid-term evaluation of the Umeå Centre for Global Health Research decided to give UCGHR unchanged strong funding during the coming 5 years.

In 2011, 9 Ph.D. students successfully defended their theses, while 8 new ones were accepted for doctoral studies.

Our Master's programme, at the Umeå International School of Public Health (UISPH), was severely hit by the new Swedish system of high tuition fees for non-European students. Formerly we would normally welcome about fifty new students each autumn, but in 2011 only 18 new Master's students came at the start of term. No student paid the tuition fee themself. Even though we are really pleased and proud of the 18 new students, we deeply regret that the new fees closed the door for so many students from low and middle income countries, students that we hitherto have had as our primary target audience. Thanks to the excellent effort of teachers, students, counselors and administrators, it was possible for us to provide a good educational program for both the new students and for existing second-year students.

The Master's programme is not the largest part of our Unit's activities. But still it represents a central hub for Epidemiology and Global Health: it is through the Master's programme that we meet many potential new PhD students. The programme is often part of partnerships we have with universities in low and middle income countries. Further, the programme represents an important collaboration between all our employees. So far we have received good support from the University in its distribution of the (albeit few) scholarships Umeå University was granted. We hope that future years will mean that national policy-makers not only realize what a mistake it was to introduce tuition fees, but also realize that they have to do something radical about the problems our and other international programmes are facing.

A drowning accident in Umeå killed one of our Master's students, Sammah Mbua Molombe. We were of course unprepared when the accident happened in the middle of July. But Molombe's fellow students, as well as our employees and the Department of Public Health and Clinical Medicine, did their best to assist Molombe's relatives at this difficult time.

The Swedish Research School for Global Health - a partnership between Umeå University and Karolinska Institute, has also worked well in 2011 and provided much-appreciated post-graduate courses.

Operations such as Epidemiology and Global Health are highly dependent on good partnerships. We would like to underline the good climate of cooperation that exists within the Department of Public Health and Clinical Medicine, most especially with our Head of Department, Professor Ellinor Ädelroth. We would also like to stress the importance of our wide-ranging cooperation with Västerbotten County Council. And last but not least, we want to thank partners within the University, Umeå Municipality as well as other partners both nationally and internationally for their valuable and creative collaborations in the past year.

This Annual Report summarizes in a concrete way our research and research training, our educational effort and the important co-operations that have characterized Epidemiology and Global Health during year 2011.

Lars Weinehall
Professor, Head of Division

Urban Janlert
Professor, Deputy Head of Division

Contents

PAGE

PhD events during 2011 1
Scholarships 17

1. Institutional setting 18

Organisation 18
Staff development 18
Budget 19
Progress 21
Staff 26

2. Research in Sweden and around the world 32

Umeå Centre for Global Health Research – working together globally to meet health challenges 33
Theme I: Epidemiological Transitions 34
Theme II: Life-course perspectives on health interventions 36
Theme III: Strengthening primary health care: the roles of rights, ethics and economic analyses 40
Theme IV: Gender, social inequality and health 42
Theme V: Climate change and health 43

3. Training at Umeå International School of Public Health 47

Master of Public Health Programme 47
Single subject courses 48
Research training 49
Educating Medical students 50
Biomedical programme 50

4. Advocacy 54

Consultancy and advisory functions 54

5. Publications 56

Original articles 2011 56
Other publications 2011 62
Doctoral theses 1987-2011 62
Licentiate theses 1994-2011 66
Public health report series 2011 66
MFS-reports 2011 68

PhD events during 2011

Gunnar Lundqvist

Zainonisa Petersen

Stephen Maluka

Mariano Salazar

Barnabas Njozing

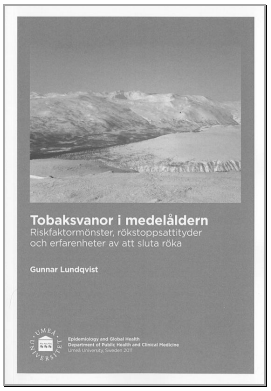
Ann Sörlin

Le Van Hoi

Gasto Frumence

Rose Laisser

Gunnar Lundqvist

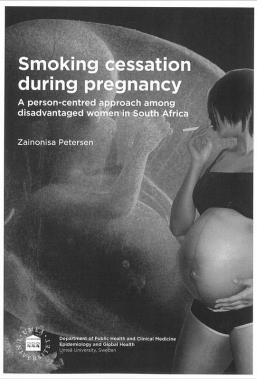


Tobaksvanor i medelåldern. Riskfaktormönster, rökstoppsattityder och erfarenheter av att sluta röka

Thesis defended 21 January, 2011
Supervisors: Lars Weinehall och Herbert Sandström
Opponent: Professor Kurt Svärdsudd, Inst för folkhälsa och vårdvetenskap, Uppsala universitet

Tobacco use, mostly smoking, has been a deeply rooted habit for many people for centuries. However, it was not until the second half of last century that the risks with smoking became obvious. Today when the bad consequences of smoking are recognized by almost all people, it is important to discuss why smokers choose to continue smoking. The main aim of this thesis is to try to better explain why some middle aged smokers choose to continue smoking in spite of knowledge of the huge mass of information that is gathered about the serious side effects of smoking. Many of these people cannot by any means stop smoking while others succeed in their attempt to quit.
Since 1990 all inhabitants in Västerbotten County are invited to a health survey the year they become 40, 50 and 60 years: the Västerbotten Intervention Programme (VIP). The VIP health survey consists of risk markers for cardiovascular diseases (blood pressure, blood sugar and blood lipids), a questionnaire on socioeconomic, psychosocial and life style factors, supplemented by a health counselling discussion with a district nurse.
The thesis is based on five papers. Four of them use VIP data. In Paper I tobacco habits are related to different levels of age, gender and education and are analyzed in a 18 year perspective, based on 112 920 VIP participants. As it has been suggested that women might have more difficulties than men to stop smoking, Paper II elucidates women's perceptions about smoking, based on interviews with nine smoking and ex-smoking women. Paper III identify metabolic consequences of heavy smoking and relate these to social and life style factors that might accompany smoking behaviour. Paper IV analyzes the individual pattern of changes in tobacco use over a ten year period among 16 492 subjects, while Paper V, a questionnaire study, addresses 513 respondents own assessments of what was especially important for them in their attempts to become smoke-free and what was positive and what was negative when they stopped to smoke. Their knowledge and attitudes about smoking issues were also analyzed.
The thesis shows that heavy smokers seem to have a metabolic profile heading towards the metabolic syndrome, and that this pattern could be reinforced by some social and life style factors. Smoking women expressed their concern over weight gain, if quitting. They provided a series of different hinders and barriers against smoking cessation as well as some explanations of why it was reasonable to continue smoking. Feeling of shame and fatalism played a major role but also influence from friends, relatives and media was regarded as important factors. For both men and women the decision to quit smoking was supported from relatives and from a wish for a healthier lifestyle. Support from the health care providers was perceived to be rare. Snus use and nicotine replacement therapy in the attempts to stop smoking were also discussed.
In summary the thesis stresses that the use of tobacco products in Västerbotten is slowly decreasing in the middle aged population in general. For people with shorter school education and at somewhat younger age the dual use of tobacco products, cigarettes and snus, are slowly increasing. However, after ten years, half of the smokers in these age cohorts still smoke. It is possible that the more addicted smokers remain, why a major challenge is to find new ways to support these individuals. Health care providers have to do more, but also schools, media, societal organizations and governmental bodies on local, regional and national levels. One proposal is to look upon nicotine dependence, especially smoking, as a chronic condition that needs various multifactorial treatment and long time follow up, and that it is important to organize the support accordingly. Special antitobacco or life style centres outside the established health care organization where focus could be on different healthy life style matters is suggested. The thesis also suggest different ways to handle smoking cessation at the primary health care level.

Zainonisa Peterson



Smoking cessation during pregnancy. A person-centred approach among disadvantaged women in South Africa

Thesis defended 18 February, 2011
Supervisors: Maria Emmelin, Krisela Steyn, Maria Nilsson
Opponent: Associate professor Prof Mimi Nichter, Department of Anthropology, University of Arizona at Tuscon, USA

Smoking remains a leading cause of premature, preventable death in South Africa killing 44 000 South Africans each year. Through the introduction of comprehensive tobacco control policies, the South African government has tried to reduce the death toll and a significant reduction in tobacco use has been recorded since its peak in the 1990's. Smoking among women, however have remained unchanged, which calls for actions. Pregnant mothers are specifically vulnerable as their smoking detrimentally affects their own health as well as the health of their babies. This thesis gives an account of the role the antenatal care system could play in reducing the burden caused by cigarette smoking.

The overall aim was to contribute to an understanding of how a person-centred approach to smoking cessation among disadvantaged pregnant women with high smoking rates may influence smoking behaviour. The specific objectives were to confirm the high smoking rates of the target population, assess their readiness to quit, explore existing barriers and promoting factors towards smoking cessation efforts within the public antenatal health care system, and to qualitatively assess the attitudes and perceptions of disadvantaged pregnant women regarding a personcentred smoking cessation intervention.

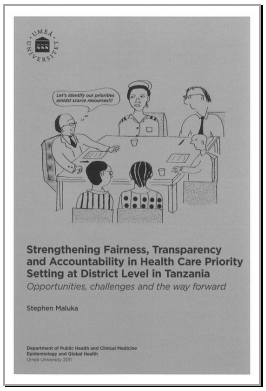
The high smoking rates of the target population was confirmed based on a crosssectional study at antenatal clinics in four main cities of South Africa. It focussed on the prevalence of smoking during pregnancy and used the stages of change theory to identify their readiness to quit. Additional questions concerned pregnancy related disease experiences, socio-economic determinants of continued smoking as well as attitudes towards the existing clinic services and its possible role in smoking cessation. A qualitative interview study analyzed more in-depth barriers for two-way communication between pregnant mothers and midwives. Both these studies informed the design and development of a person-centred smoking cessation intervention delivered at four public sector antenatal clinics in Cape Town. The intervention was subjected to a comprehensive evaluation based on a combination of quantitative and qualitative measures. This thesis utilizes data from the qualitative process assessment part, comprising individual interviews and focus group discussions with pregnant women during the implementation period of the intervention.

The survey results pointed out a high prevalence of smoking of 46% amongst disadvantaged pregnant women, with varying readiness for behaviour change. Most women were in the contemplation stage of behaviour change and thus ready to quit. Many of the women felt positive about the role of the midwife as an antenatal care provider, but they did not have confidence in midwives concerning encouraging or supporting women to change addictive behaviour be it smoking, alcohol or other illegal substances. The qualitative research highlighted the need for revised curricula for health education and counselling. The analysis illustrated how the current situation created tension between clinic staff and pregnant women making women feel unworthy and thus leaving little room for changing behaviour. The in-depth interviews and the focus group discussions provided an analytical account of how the person-centred approach in this population was perceived by the women themselves. It illustrated that a multifaceted intervention programme, using peer counselors and educational material designed specifically for a given target population, can successfully bring about behaviour change. The intervention succeeded in shifting women's perceptions of hopelessness into feelings of being empowered to face their addictions and competent to make a change. Though the intervention meant greater rapport with the midwives, involving peer counsellors was rated highly by the participating women. The women reported having used the educational material and attached a great value to the appropriateness of the material to their life situations, and the effectiveness of having it combined with

counselling from a peer counsellor. This qualitative evaluation showed the importance of a multifaceted intervention approach, in helping women identify with their behaviour change.

The thesis highlights the importance of designing smoking cessation interventions that are specific to the needs of target populations. When smoking cessation efforts are included into routine antenatal services it is important that the target group inform the nature and specific components of the intervention.

Stephen Maluka



Strengthening fairness, transparency and accountability in health care priority setting at district level in Tanzania. Opportunities, challenges and the way forward

Thesis defended 18 March, 2011
Supervisors: Anna-Karin Hurtig, Miguel San Sebastian, Peter Kamuzora
Opponent: Professor Norman Daniels, Department of Global Health and Population, Harward School of Public Health, Boston, USA

Background
During the 1990s, Tanzania, like many other developing countries, adopted health sector reforms. The most common policy change under health sector reforms has been decentralisation, which involves the transfer of power and authority from the central levels to the local governments. However, while decentralisation of health care planning and priority-setting in Tanzania gained currency in the last decade, its performance has, so far, been less than satisfactory. In a five-year EU-supported project, which started in 2006, ways of strengthening fairness and accountability in priority-setting in district health management were studied through action research. As part of this overall project, this doctoral thesis aims to analyse the existing health care organisation and management systems, and explore the potential and challenges of implementing Accountability for Reasonableness approach to priority setting in Tanzania.

Methods
A qualitative case study in Mbarali district formed the basis of exploring the socio-political and institutional contexts within which health care decisionmaking takes place. The thesis also explores how the Accountability for Reasonableness intervention was shaped, enabled and constrained by the interaction between the contexts and mechanisms. Key informant interviews were conducted with the Council Health Management Team, local government officials, and other stakeholders, using a semi-structured interview guide. Relevant documents were also gathered and group priority-setting processes in the district were observed.

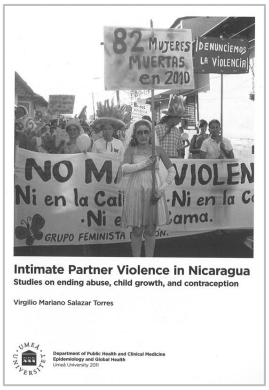
Main findings
The study revealed that, despite the obvious national rhetoric on decentralisation, actual practice in the district involved little community participation. The findings showed that decentralisation, in whatever form, does not automatically provide space for community engagement. The assumption that devolution to local government promotes transparency, accountability and community participation, is far from reality. In addition, the thesis found that while the Accountability for Reasonableness approach to priority setting was perceived to be helpful in strengthening transparency, accountability, stakeholder engagement and fairness, integrating the innovation into the current district health system was challenging.

Conclusion
This thesis underscores the idea that greater involvement and accountability among local actors may increase the legitimacy and fairness of priority-setting decisions. A broader and more detailed analysis of health system elements, and socio-cultural context, can lead to better prediction of the effects of the innovation, pinpoint stakeholders' concerns, and thereby illuminate areas requiring special attention in fostering sustainability. Additionally, the thesis stresses the need to recognise and deal with power asymmetries among various actors in priority-setting contexts.

Virgilio Mariano Salazar Torres

Intimate partner violence in Nicaragua. Studies on ending abuse, child growth, and contraception

Thesis defended 20 May, 2011
Supervisors: Ulf Högberg, Ann Öhman
Opponent: Professor Kurt Svärdsudd, Inst för folkhälsa och vårdvetenskap, Uppsala universitet



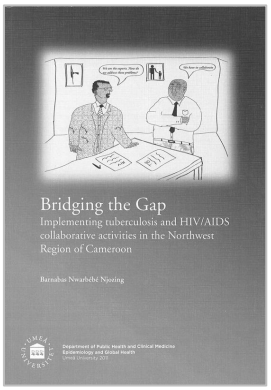
Background: Intimate partner violence (IPV) is a pervasive, worldwide public health problem and one of the most common violations of human rights. The aim of this thesis were twofold: (i) to study the process and factors related to ending of IPV of Nicaraguan women and (ii) to examine to what extent IPV exposure is associated with the child linear growth and women's contraceptive use after pregnancy.

Methods: Data were collected from a panel study which followed 398 women who were inquired about their IPV exposure during pregnancy and at follow-up a median of 43 months after delivery. Three hundred seventy five of their children were available for anthropometric assessment. Thirteen in-depth interviews were conducted with women exposed to physical/ sexual IPV during pregnancy but not at follow-up. For analysis both quantitative and qualitative methodologies were used.

Results: Women experienced four patterns of abuse: never abused, ending abuse, continued abuse, and new abuse. Of the women who experienced any IPV before or during pregnancy, 59% (95%CI 52-65%) reported no abuse at follow-up (135/229). Women exposed to a continued abuse pattern and those exposed to any IPV, emotional or physical IPV at follow-up had higher odds of reversible contraceptive use. Further, exposure to any IPV and controlling behavior by a partner during pregnancy impaired the index child linear growth. Girls whose mothers had low social resources during pregnancy were the most affected. Women felt that being inquired about IPV while pregnant contributed to process of ending the abuse. Ending IPV was experienced as a process with three phases: "I came to a turning point," "I changed," and the "Relationship ended or changed." Successful strategies to ending abuse mainly involved utilizing informal networks. Ending IPV did not always mean ending the relationship. IPV awareness, severity of the abuse, and economic independence were individual factors associated with ending of abuse. At the relationship level, diminishing or no exposure to controlling behavior by their partner was a key element. At the community level, a supportive and less tolerant to IPV environment as well as exposure to IPV inquiry during pregnancy facilitated the process of ending abuse.

Conclusion: The study found that IPV exposure is associated with the children's linear growth and women's reversible contraceptive use. In addition, it is clear that gender norms regarding IPV are not static and that they play an important role in facilitating the process of ending the abuse by increasing abused women's access to emotional and material support. Our results emphasize the relevance of improving public services response to IPV.

Barnabas Nwarbébé Njozing



Bridging the gap. Implementing tuberculosis and HIV/AIDS collaborative activities in the northwest region of Cameroon

Thesis defended 10 June, 2011
Supervisors: Anna-Karin Hurtig, Kerstin Edin, Miguel San Sebastian
Opponent: Professor Kurt Svärdsudd, Inst för folkhälsa och vårdvetenskap, Uppsala universitet

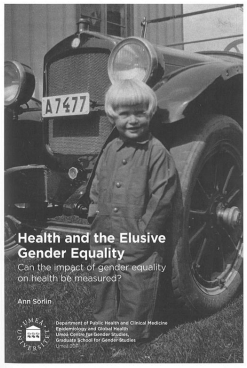
Introduction
The human immunodeficiency virus (HIV) epidemic has led to the upsurge of tuberculosis (TB) infection globally, but most especially in areas with high HIV prevalence. In the past, there was lack of a coordinated global and national response between TB and HIV programmes to curb the devastating impacts of both infections. However, the ProTEST Initiative piloted in sub-Saharan Africa in 1997 demonstrated that TB and HIV programmes could collaborate successfully in delivering joint services. This prompted the development of the WHO interim policy on collaborative TB/ HIV activities in 2004, aimed at reducing the burden of TB and HIV in populations affected by both infections. This thesis explores how collaborative activities between TB and HIV programmes have been established in Cameroon and implemented in the Northwest Region. It also highlights the achievements and constraints in delivering joint services to TB patients co-infected with HIV.

Methods
The study was conducted in the Northwest Region, one of the 10 regions of Cameroon with the highest HIV prevalence. The study uses health system research combining qualitative and quantitative methods to explore the research objectives. Qualitative methods were used to capture the perspectives of: i) the service providers; key informants from the central, regional and district levels concerned with the collaboration process and in delivering HIV services to TB patients, and ii) TB patients regarding HIV testing as an entry point to HIV services. Quantitative methods were used to ascertain TB patients' access to HIV services provided for by the collaboration.

Results
The study demonstrated that although there were varying levels of collaboration between TB and HIV programmes from the central to operational level in the health system, delivering joint services was feasible. Furthermore, despite the challenges TB patients faced in testing for HIV, overall implementing TB/HIV collaborative activities increased TB patients' acceptability and accessibility to HIV services. These were facilitated by the improved collaboration at the operational level, and enhanced service provider-patient alliance which was instrumental in building patients' trust in the health system. Collaboration also led to cross-training and teamwork between staffs from both programmes, and improved networking between service providers and other actors involved in TB and HIV care. Nevertheless, there were health system constraints including inadequate leadership and management, shortage of human and infrastructural resources, frequent interruptions in the supply of essential drugs and laboratory materials.

Conclusion
TB/HIV collaborative activities have improved service delivery and TB patients' access to HIV services. Nonetheless, appropriate stewardship which guarantees joint planning, monitoring and evaluation of essential activities, and accountability at all levels in the health system is invaluable. Besides, the identified health system constraints which could adversely influence effective joint service delivery and a sustainable collaboration deserve due appraisal.

Ann Sörlin



Health and the elusive gender equality. Can the impact of gender equality on health be measured?

Thesis defended 23 September, 2011
Supervisors: Ann Öhman and Lars Lindholm
Opponent: Docent Tuija Muhonen, Institutionen för kultur och samhälle, Malmö högskola, Malmö

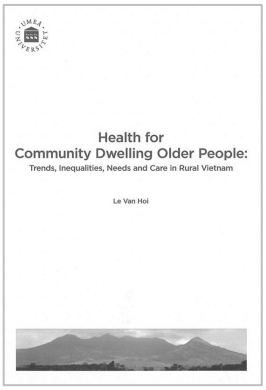
Background: All over the world men and women show different health patterns, and there can be many and various reasons for these differences. This thesis therefore evaluates the impact of gender equality on health. To do this, we must be able to measure gender equality. In this thesis, we develop two new measurements of gender equality and evaluate the relationship between gender equality and health.

Methods: Two cross-sectional studies, one register-based and one survey study, are used to compare different measurements of gender equality and different measurements of health, and the relationship between them. Differences between men and women in relation to health outcome are also discussed in the thesis. The register study, comprising 1 097 202 individuals, is based on public registers and includes information on workplace, income, sickness absence, full-time/part-time work, level of education, parental leave and temporary parental leave. A gender equality measurement, the Organizational Gender Gap Index or OGGI, was constructed and 123 companies in two sectors were ranked using the index. Employees in 21 of the most and least gender-equal companies were invited to participate in a survey. A second gender equality index was constructed based on respondents' own reports regarding gender equality in their partner relationship. The variables measured were income, full-time/part-time work, educational level, and responsibilities for and sharing of household duties and parental leave. Both indices were evaluated using the single question: How gender equal is your workplace/ your relationship with your partner? The four measurements were dichotomized and tested for a relationship to health. Health was measured by three different measurements: registerbased sickness absence, self-reported sickness absence in the past year, and self-rated health.

Results: The thesis has produced two new measurements of gender equality, described above. On gender equality in the partner relationship, we found a difference between men and women. Men perceive higher gender equality than they report, while women report more gender equality than they perceive. When it comes to gender equality at work, we found that employees perceive their company to be more gender equal than the OGGI index shows. This thesis confirms the findings that men have better health than women regardless of measurement. However, in this study we also found that increased gender equality decreases these differences. If employees perceive their company to be gender equal, they have higher odds of rating their health as good, and this is especially so for women.

Conclusion: This thesis supports the hypothesis that differences in health between men and women can be related to a lack of gender equality. When men and women have different possibilities and power to shape society and their own lives, their health will be affected through embodiment of both biological and sociological determinants in accordance with the eco-social theory. Increased gender equality will decrease the differences in health between men and women through convergence. The theory of convergence explains why men and women are affected differently by greater gender equality. Greater gender equality will also decrease the social injustice between men and women and improve justice in accordance with the theory of justice to gender. The differences found between the indices and the single question on perceived gender equality make clear the need for "hard facts" as an complement to people's own views on gender equality.

Le Van Hoi



Health for community dwelling older people: Trends, inequalities, needs and care in rural Vietnam

Thesis defended 14 October, 2011
Supervisors: Lars Lindholm, Truong Viet Dung, Pham Tang, Nguyen Thi Kim Chuc
Opponent: Ass prof Zarina Kabir, Karolinska Institutet, Stockholm

Background

In Vietnam, the proportion of people aged 60 and above has increased rapidly in recent decades. The majority live in rural areas where socioeconomic status is more disadvantaged than in urban areas. Vietnam's economic status is improving but disparities in income and living conditions are widening between groups and regions. A consistent and emerging danger of communicable diseases and an increase of non-communicable diseases exist concurrently. The emigration of young people and the impact of other socioeconomic changes leave more elderly on their own and with less family support. Introduction of user fees and development of a private sector improve the coverage and quality of health care but increase household health expenditures and inequalities in health care.

Life expectancy at birth has increased, but not much is known about changes during old age. There is a lack of evidence, particularly in rural settings, about health-related quality of life (HRQoL) among older people within the context of socioeconomic changes and health-sector reform. Knowledge of long-term elderly care needs in the community and the relevant models are still limited. To provide evidence for developing new policies and models of care, this thesis aimed to assess general health status, health care needs, and perspectives on future health care options for community-dwelling older people.

Methods

An abridged life table was used to estimate cohort life expectancies at old age from longitudinal data collected by FilaBavi DSS during 1999-2006. This covered 7,668 people aged 60 and above with 43,272 person-years. A 2007 cross-sectional survey was conducted among people aged 60 and over living in 2,240 households that were randomly selected from the FilaBavi DSS. Interviews used a structured questionnaire to assess HRQoL, daily care needs, and willingness to use and to pay for models of care. Participant and household socioeconomic characteristics were extracted from the 2007 DSS re-census.

Differences in life expectancy are examined by socioeconomic factors. The EQ-5D index is calculated based on the time trade-off tariff. Distributions of study subjects by study variables are described with 95% confidence intervals. Multivariate analyses are performed to identify socioeconomic determinants of HRQoL, need of support, ADL index, and willingness to use and pay for models of care. In addition, four focus group discussions with the elderly, their household members, and community association representatives were conducted to explore perspectives on the use of services by applying content analysis.

Results

Life expectancy at age 60 increased by approximately one year from 1999-2002 to 2003-2006, but tended to decrease in the most vulnerable groups. There is a wide gap in life expectancy by poverty status and living arrangement. The sex gap in life expectancy is consistent across all socioeconomic groups and is wider among the more disadvantaged populations.

The EQ-5D index at old age is 0.876. Younger age groups, position as household head, working, literacy, and belonging to better wealth quintiles are determinants of higher HRQoL. Ageing has a primary influence on HRQoL that is mainly due to reduction in physical (rather than mental) functions. Being a household head and working at old age are advantageous for attaining better HRQoL in physical rather than psychological terms. Economic conditions affect HRQoL through sensory rather than physical functions. Long-term living conditions are more likely to affect HRQoL than short-term economic conditions.

Majority of older people had no need of support for each of the specific ADL items. Dependence in instrumental or intellectual activities of daily living (ADLs) is more common than in basic ADLs. People who need complete help are fewer than those who need some help in almost all ADLs. Over three-fifths of those who needed help received enough support in all ADL dimensions. Children and

grand-children are confirmed to be the main caregivers. Presence of chronic illness, age groups, sex, educational level, marital status, household membership, working status, household size, living arrangement, residential area, household wealth, and poverty status are determinants of the need for care.

Use of mobile teams is the most requested service; the fewest respondents intend to use a nursing centre. Households expect to use services for their elderly to a greater extent than did the elderly themselves. Willingness to use services decreases when potential fees increase. The proportion of respondents who require free services is 2 to 3 times higher than those willing to pay full cost. Households are willing to pay more for day care and nursing centres than are the elderly. The elderly are more willing to pay for mobile teams than are their households. ADL index, age group, sex, literacy, marital status, living arrangement, head of household status, living area, working status, poverty and household wealth are factors related to willingness to use services.

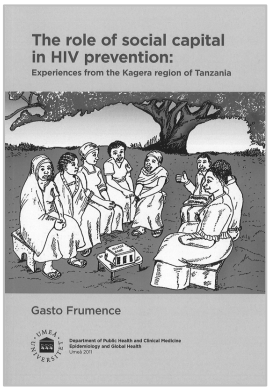
Conclusions

There is a trend of increasing life expectancy at older ages in rural Vietnam. Inequalities in life expectancy exist between socioeconomic groups. HRQoL at old age is at a high level, but varies substantially according to socioeconomic factors. An unmet need of daily care for older people remains. Family is the main source of support for care. Need for care is in more demand among disadvantaged groups.

Development of a social network for community-based long-term elderly care is needed. The network should focus on instrumental and intellectual ADLs rather than basic ADLs. Home-based care is more essential than institutionalized care. Community-based elderly care will be used and partly paid for if it is provided by the government or associations.

The determinants of elderly health and care needs should be addressed by appropriate social and health policies with greater targeting of the poorest and most disadvantaged groups. Building capacity for health professionals and informal caregivers, as well as support for the most vulnerable elderly groups, is essential for providing and assessing the services.

Gasto Frumence



The role of social capital in HIV prevention: Experiences from the Kagera region of Tanzania

Thesis defended 25 November, 2011
Supervisors: Lennarth Nyström, Maria Emmelin, Japhet Killewo
Opponent: Professor Bo Haglund, Karolinska Institutet, Stockholm

Background
The role of social capital for promoting health has been extensively studied in recent years but there are few attempts to investigate the possible influence of social capital on HIV prevention, particularly in developing countries. The overall aims of this thesis are to investigate the links between social capital and HIV infection and to contribute to the theoretical framework of the role of social capital for HIV prevention.

Methods
Key informant interviews with leaders of organizations, networks, social groups and communities and focus group discussions with members and non-members of the social groups and networks were conducted to map out and characterize various forms of social capital that may influence HIV prevention. A quantitative community survey was carried out in three case communities to estimate the influence of social capital on HIV risk behaviors. A cross-sectional survey was conducted to estimate the HIV prevalence in the urban district representing a high HIV prevalence zone to determine the association between social capital and HIV infection.

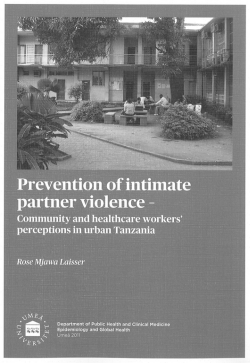
Main findings
In early 1990's many of the social groups in Kagera region were formed because of poverty and many AIDS related deaths. This formation of groups enhanced people's social and economic support to group members during bereavement and celebrations as well as provided loans that empowered members economically. The social groups also put in place strict rules of conduct, which helped to create new norms, values and trust, which influenced sexual health and thereby enhanced HIV prevention. Formal organizations worked together with social groups and facilitated networking and provided avenues for exchange of information including health education on HIV/AIDS. Individuals who had access to high levels of structural and cognitive social capital were more likely to use condoms with their casual sex partners compared to individuals with access to low levels. Women with access to high levels of structural social capital were more likely to use condoms with casual sex partners compared to those with low levels. Individuals with access to low levels of structural social capital were less likely to be tested for HIV compared to those with access to high levels. However, there was no association between access to cognitive social capital and being tested for HIV. Individuals who had access to low levels of both structural and cognitive social capital were more likely to be HIV positive compared to individuals who had access to high levels with a similar pattern among men and women.

Conclusion
This thesis indicates that social capital in its structural and cognitive forms is protective to HIV infection and has played an important role in the observed decline in HIV trends in the Kagera region. Structural and cognitive social capital has enabled community members to decrease number of sexual partners, delay sexual debut for the young generation, reduce opportunities for casual sex and empower community members to demand or use condoms. It is recommended that policy makers and programme managers consider involving grassroots' social groups and networks in the design and delivery of interventions strategies to reduce HIV transmission.

Rose Laisser

Prevention of intimate partner violence - Community and healthcare workers' perceptions in urban Tanzania

Thesis defended 2 December, 2011
Supervisors: Maria Emmelin, Lennarth Nyström, Gunilla Lindmark
Opponent: Professor Katarina Hjelm, School of Health and Caring Sciences, Linnaeus University



Background: Intimate partner violence (IPV) against women is public health and human rights concern. The studies forming this thesis seek to understand healthcare worker and community attitudes and perceptions about IPV; their role in support, care and prevention of IPV, and the feasibility of introducing routine screening for IPV among women attending healthcare.

Methods: Four interrelated studies were conducted in Temeke District, Dar es Salaam, Tanzania: 1) a content analysis of 16 in-depth interviews with healthcare workers about their experiences of meeting IPV clients, 2) a grounded theory analysis of seven focus group discussions that explore community perceptions, 3) a cross sectional study of 657 healthcare workers and students to understand their attitudes and perceptions about IPV and future roles in care and support, and 4) evaluation of a pilot intervention that introduces routine screening in an outpatient department. The pilot intervention included screening of 102 women, ten observations of healthcare worker interactions with women clients, three focus group discussions, and five narratives written by healthcare workers about their experiences with the screening tools.

Results: Gender inequalities, attitudes, and poverty intersect in the explanation of IPV. Healthcare workers view low economic status among women, rigid gender norms, and stigma that influences women to stay in violent relationships. Alcohol abuse, multiple sexual partners and low levels of income among men were cited as triggers for IPV episodes. Between 20-67% of healthcare workers and students report meeting IPV clients at work. More than 90% observed clients with unexplained feelings of sadness and/or loss of confidence. Resource and training limitations, heavy workloads and low salaries constrain services. A strong desire to make a difference in the care and support of IPV clients was present, but violence as a hidden agenda with a client resistance to disclosure was a challenge. The community study shows a transition in gender norms is making violence against women less acceptable.

Conclusions and suggestions: Healthcare workers and the community strongly wish and are committed to support IPV prevention. Both groups understood the meaning, provocative factors and some IPV effects. This awareness contributes to their desire to be part of a change. At the central level, prevention of IPV should be on the governments' policy agenda and should be prioritised. Education about gender-based violence must be incorporated into the curricula of healthcare workers. At community level, advocacy is necessary for changing harmful gender norms and measures to combat women's poverty. Men should be engaged at all levels. Provision of information on the human rights perspectives of IPV should be strengthened and related to other types of violence.

Scholarships 2011/2012

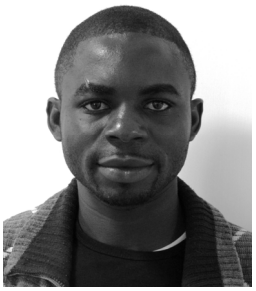
The 2011-2012 Centre Party Global Health scholarships for MPH students at UISPH

Tadesse Senay Alemu, Ethiopia

Gilbonce Betson, Tanzania

Melesse Birega, Ethiopia

Bedru Hussen Mohammed, Ethiopia



Bernard Che Longho, Cameroon

Obse Assefa, Ethiopia

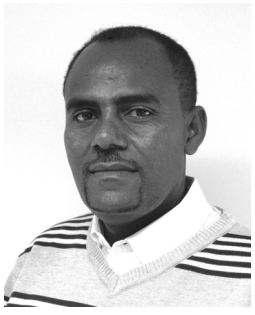
The 2011 Centre Party Global Health Research scholarships for PHD students at UISPH

Cynthia Anticona Peru

Ana Lorena Ruano Guatemala

Rose Laisser Tanzania

Yalem Tsegay Assfaw Ethiopia



Tesfay Gebrehiwet Ethiopia

Tej Ram Jat India

Joseph Mumba Zulu Zambia

Jennifer Crowe Costa Rica

1. Institutional setting

Organisation

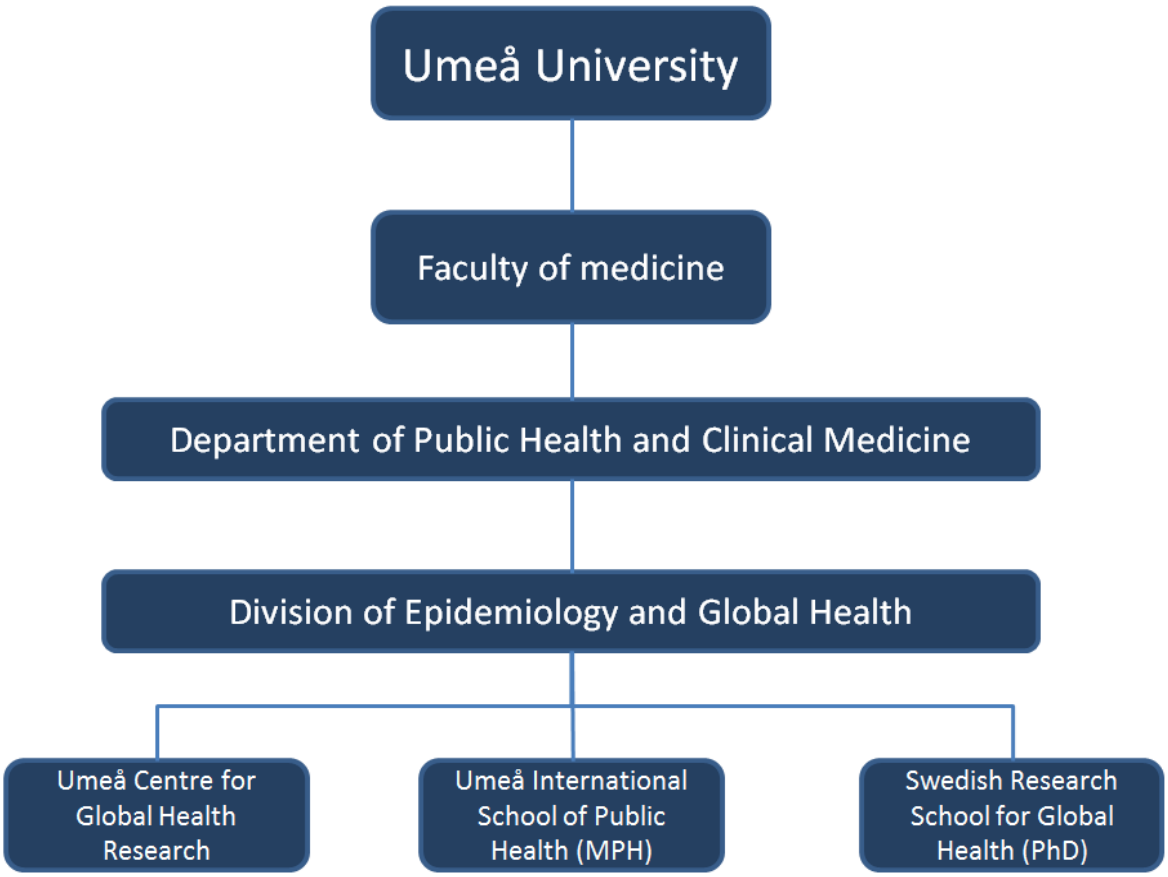


Figure 1. Organisational chart of division within department and faculty

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 prefect. 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 and a group with special responsibility for the distribution of office space among employees. Most issues within the Division are also discussed in a bi-weekly staff meeting.

Staff development

At present 63 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, 38 are women

(62%). Of the 9 professors, two are female. Of the 59 PhD students 36 are women and 23 are men. The female/male ratio with women in majority) differs within groups, with a minority of women among professors and teachers/researchers whereas it is quite the contrary among administrators where most employees are women.

In all, 59 doctoral students are registered (2011) within our research programme or receive major tutorial with us. They represent a mix of physicians, nurses, sociologists, economists, social workers, dentists, environmentalists, physiotherapists and nutritionists. The post-doc personnel represent many disciplines such as environmental, paediatric, reproductive, nutritional and oral health but also medical sociology, statistics and health economics.

Budget

The total budget (Table 1) for the year 2011 amounted to SEK 57 million, 54 % of which consisted of external research grants or grants for bilateral development research projects.

Teaching support from the university has been granted for our Public Health programme. Eight PdD students and six MPH students were 2011 awarded scholarships from the Swedish Centre Party donation.

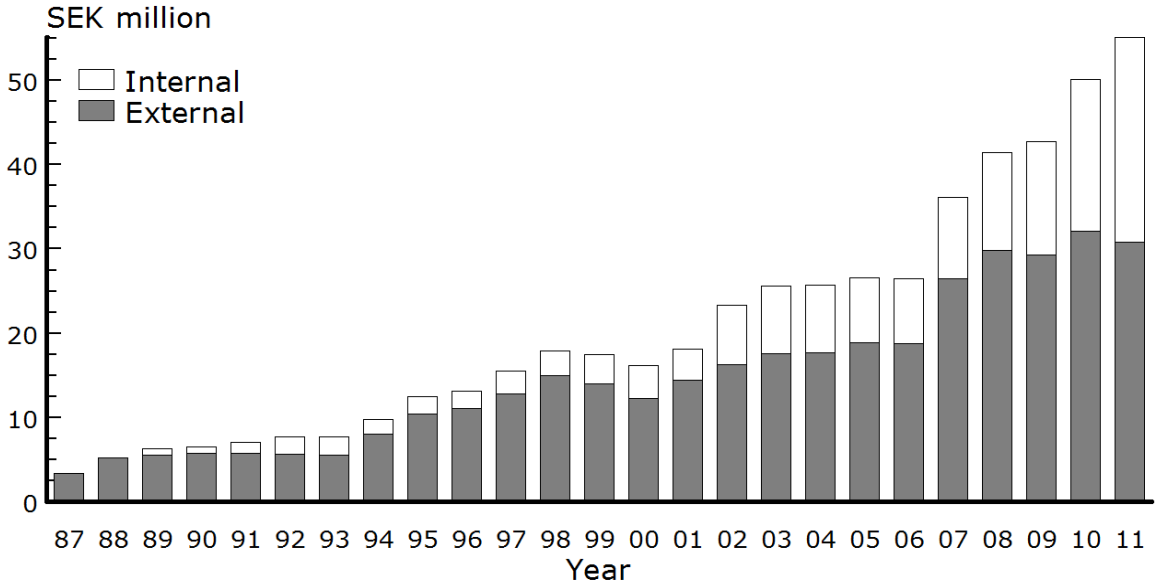


Figure 2. Development of total budget 1987-2011.

Table 1. Revenues and costs during 2011.

Revenues (1000 SEK)	Undergraduate and Master's Studies	Research and Doctoral Studies	Commissioned research	Total
Government grants	11 163	7 714	0	18 887
External contracts	580	0	3 470	4 050
External grants	291	26 837	0	27 128
Other revenues	310	6 796	191	7 297
Total	**12 344**	**41 347**	**3 661**	**57 352**

Costs (1000 SEK)				
Staff	5 631	17 107	2 297	25 035
Premises	221	334	1	556
Other operative expences	1 320	19 625	723	21 668
Depreciation	16	179	18	213
Overheads	3 537	5 181	327	9 045
Total	**10 725**	**42 425**	**3 566**	**56 516**

Table 2. Financial Resources in 2011 broken down by different funding agencies

Financier	Incomings (million SEK)
The Swedish Research Council	8.0
FAS	6.5
EU	6.4
SIDA	2.8
Vårdal Foundation	2.0
Karolinska Institutet	1.6
Umeå municipality	1.0
Leiden University	1.0
SMI	0.3
Svenska Läkaresällskapet	0.3
AMAP	0.2
Stockholm University	0.1
Uppsala University	0.1
National Public Health Institute	0.1
Lunds University	0.1
Swedish Society for Coeliacs	0.1
Total	**30.6**

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 3). 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 doctoral theses; and number of external grants awarded. Each department is given a budget, based partly on this assessment system.

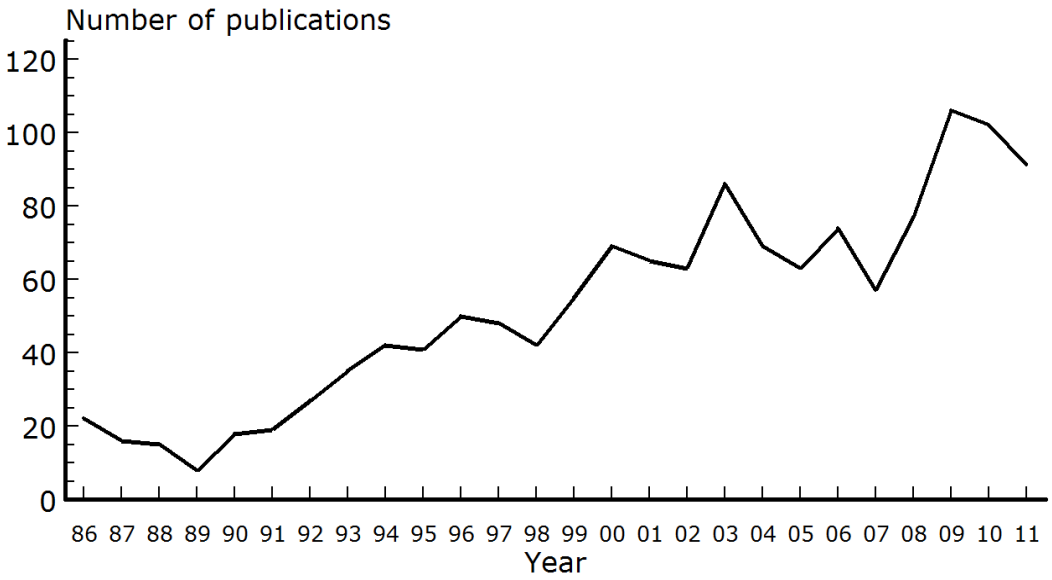


Figure 3. International publications in peer reviewed journals from our unit 1986-2011.

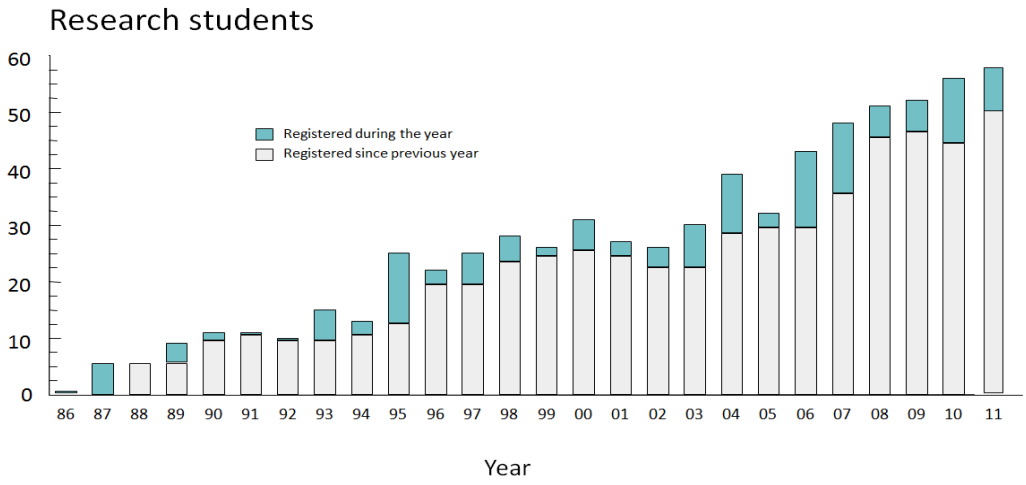


Figure 4. Research students at the division 1986-2011.

Figure 4 shows the number of research students over time, one of the parameters for the budget model assessment system. During 2011, 59 PhD students were associated with our department, 7 of which were registered during the year. A total of SEK 40 million is thus channelled to the departments as a bonus; we acquire 7.1 percent of this, ranking us number 3 of the divisions of the medical faculty. Figure 5 shows the number of doctoral dissertations over the 25 years that we have existed as an independent research environment.

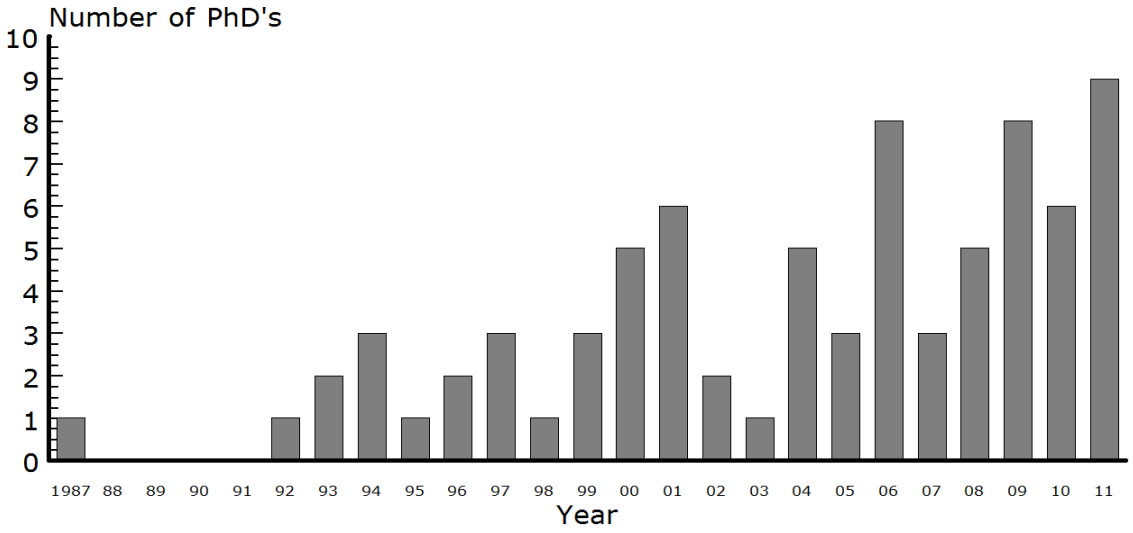


Figure 5. Doctoral dissertations 1987-2011.

Special events during 2011

Unit day at Café Station, Umeå

Administrators' visit to the department of Social Medicine and Global Health in Malmö

Celebrating 25 years (Riga, Latvia)

Staff

Lars Weinehall. MD, Professor in epidemiology & family medicine and head of the unit. Research on cardiovascular disease (CVD) prevention, on the role of Primary Health Care in community intervention programs, on health system and health promotion policy research. Also attached to the Research and Developmental Unit of the County Council.

Urban Janlert. MD, Professor of Public Health, specialist in Social Medicine. Deputy Head of Division. Research in social epidemiology (unemployment, social deprivation). Also attached to the Research and Developmental Unit of the County Council.

Karin Johansson. Administrative co-ordinator. Responsible for departmental and staff administration. Faculty officer for the Master of Public Health programme.

Sabina Bergstén. MSc. Programme Administrator of the Public Health Programme, Umeå International School of Public Health. Student support and scholarship issues. International contact person as well as gender equality representative for the Department of Public Health and Clinical Medicine.

Lena Björklund Olofsson. BSc. Research interests in young people's well-being. Involved in the project "Unga I Umeå", evaluating child and adolescent health. Mapping academic Global Health Centres working with chronic diseases.

Yulia Blomstedt. MPH, PhD. Deputy Principal Investigator for INTREC – an EU financed collaboration between partner universities and organizations in Africa, Asia, USA and Europe, designed to build capacity for research on social determinants of health in low- and middle-income countries. Leader for Theme II "Life-course perspective on health interventions" within Umeå Centre for Global Health Research. Also involved in the collaborative programme "Ageing and Living Conditions" at Umeå University. Research on health interventions, self-reported health, health care management.

Peter Byass. Professor of Global Health and Director of the Umeå Centre for Global Health Research. Works extensively on health in Southern countries, particularly on issues of measuring health and disease. This involves close collaboration with the Indepth Network, where he chairs the Scientific Advisory Committee, and many of its population surveillance site members. Much of his research is concerned with verbal autopsy and cause of death methods. He is Deputy Editor of Global Health Action and also holds honorary Professorships at the University of Aberdeen, Scotland and Witwatersrand University, South Africa.

Mark Collinson. PhD, Guest researcher. Leads the field operations of the Agincourt Health and Demographic Surveillance System in South Africa and heads the INDEPTH Network Migration and Urbanisation Working Group.

Kjerstin Dahlblom. MPH, PhD. Chair of the Programme council for the International Master Programme in Public Health (PRPH). Administrator of scholarships for Minor Field Studies (MFS). Teaches qualitative methodology and coordinates the thesis course in the MPH programme. Thesis project was on sibling caretakers in León, Nicaragua. Research fields of interest: children's rights, children's participation in research, qualitative methods.

Lucia D'Ambruoso. PhD. Post-doctoral research fellow. Research interests: maternal health in developing countries, care in obstetric emergencies, critical incident audit, verbal autopsy/social autopsy, community participation, the social determinants of health, social theory, qualitative methods, interdisciplinarity and research ethics. Involved in research in South Africa developing verbal autopsy for routine application.

Kerstin Edin. RN midwife, MPH PhD, research associate. Main research interest on the topic of intimate partner violence with special focus on gender, sexuality and on the period of pregnancy. Also attached to the Umeå Centre for Gender Studies.

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

Kristina Edvardsson. Registered nurse, Master in Nursing. Doctoral studies on children´s health within the Västerbotten County Council Salut programme and the Vinnvård research group.

Andreas Ekholm. Economic coordinator. Responsible for economic planning, budgeting and accounting.

Malin Eriksson. Social worker, MA in social work, PhD in Public Health. Teaches social theory and qualitative methodology in the Master of Public Health programme. Conducts research on social capital and its implications for health promotion.

Eva Eurenius. PhD, project assistant within the Salut Child-Health Intervention Programme in Västerbotten County. Studies within the Salut Programme focus on the pregnant woman's and her partner's health, lifestyle and lifesituation with follow-ups of the infants', adolescents', and parents' ditto after childbirth.

Edward Fottrell. BSc MPH PhD. Post-doc research fellow. Research interests in demographic and health surveillance in developing countries, with a particular focus on methodological issues in measuring mortality and deriving causes of death through verbal autopsy, global health transitions, and the issues of health measurement particular to maternal and neonatal health. Involved in teaching and supervision in the Epidemiology profile on the MPH programme.

Isabel Goicolea. MD, MSc, PhD. Post-doc research fellow. Research interests in sexual and reproductive rights, gender, and adolescents´ health. Involved in research on masculinities

and young people´s sexual and reproductive health and rights in Latin America.

Lena Granlund. MD, General Practitioner. PhD-studies on vitamin D deficiency and health in northern Sweden, an epidemiological study of Immigrant and native Swedish populations at latitude 63-69˚N. The study is including the project VIDI (Vitamin D deficiency in Immigrants), an epidemiological study of vitamin D deficiency in immigrants born in the Middle East or Africa but living in Umeå. Also affiliated to the Department of Family Medicine.

Alison Hernandez. MPH. PhD student. Doctoral studies on Health Service Delivery in Rural Guatemala: Analysis of Strategies to Support the Performance of Auxiliary Nurses.

Anna Holmström. Since April 2011 Anna Holmström is 50% coordinator of the Umeå SIMSAM network, and 50% coordinator of the national SIMSAM network. SIMSAM is short for: ”Swedish Initiative for research on Microdata in the Social And Medical Sciences” and the network in Umeå is focusing on multidisciplinary register-based research connecting childhood with life-long health and welfare (www.simsam.org.umu.se). Link to the national SIMSAM network: http://simsam.nu/. Anna holds a PhD in molecular biology, and after a post-doc period in Heidelberg she has acquired broad experiences within project management.

Anna-Karin Hurtig. MD, PhD DTM&H, MSc. Associate professor in public health. Director of research studies. Research areas: Infectious disease policy, primary health care strengthening in low income countries.

Elisabet Höög. MA in work- and organizational psychology. Doctoral studies on Implementation challenges in health and social care organizations.

Anneli Ivarsson. MD, PhD in Paediatrics, Associate Professor in Epidemiology and Public Health Sciences. Editorial Board Member of Global Health Action. Principal investigator of the Umeå SIMSAM Node focusing on multidisciplinary register-based research connecting childhood with life-long health and welfare. Extensive research on coeliac disease, and increasingly involved in child health issues in Sweden and internationally. Attached to the Research and Developmental Unit of the Västerbotten County Council.

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

Kathleen Kahn. PhD, MPH, MBBCh. Guest Researcher. Collaborative work in child and adolescent health, community-based cause of death assessment, and adult health and aging through INDEPTH multi-site work. Active in forging research and training links with Wits University, South Africa. Also based in the MRC/Wits Rural Public Health and Health Transitions Research Unit (Agincourt), School of Public Health, University of the Wit-watersrand, South Africa.

Therese Kardakis. Doctoral student withing the Vinnvård project. Research on implementation of national guidelines.

John Kinsman. MSc, PhD. Currently Work Package leader for the EU-funded INTREC project, managing the production of seven country reports from Africa and Asia on the social determinants of health, and research training needs on this topic; conducing formative research to contribute to the design of a healthy lifestyle intervention for adolescent girls in rural South Africa; and managing the monitoring and evaluation of an AIDS telemedicine programme for clinicians and prison officials in Kyrgyzstan and Tajikistan.

Tord Kjellström. Senior Guest Professor of global health, specialist in environmental and occupational epidemiology. Research on the health impact of climate factors and climate change on working people and the consequences for the epidemiological transition and health equity.

Barbro Larsson. Working with course administration in the medical and biomedicine programme. Reviewer for the unit in the Personnel Administrative Self-Service at Umeå University. Also involved in Minor Field Studies.

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.

Marie Lindkvist. PhD in Statistics, Senior Lecturer in statistics, Statistical consultant.

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

Hii Yien Ling. MPH. PhD study of the impact of climate variability on dengue with focus on climate-based dengue early warning system.

Veronika Lodwika. Course administrator for the courses in “Research Methodology with biostatistics” and ”Climate Change and Health”. Also administrates the Master thesis seminars and stipends for doctoral students.

Curt Löfgren. Senior lecturer in Economics. Study director of the Master of Public Health Programme. Doctoral studies in health economics, particularly issues on how to protect the poor in third world countries from catastrophic health expenditure.

Göran Lönnberg. Statistician, research assistant. Involved in the projects: "Västerbotten Intervention Program" (VIP), "Sweden Stroke Prevention Study" (SSPS), "Ageing and Living Conditions" (ALC).

Lena Mustonen. Administrator within the EU-supported projects DengueTools and INTREC. Responsible for the division's web site, the publication database (DIVA) and also the staff catalogue information.

Anna Myléus. Medical doctor, doctoral studies on the Swedish epidemic of celiac disease in children.

Fredinah Namatovu. Masters in Health and Society, Doctoral studies on exploring the environmental exposures to childhood celiac disease: A focus on the role of medical and socioeconomic factors in Sweden.

Nawi Ng. MD, MPH, PhD. Associate Professor in Epidemiology and Global Health. Investigator in the WHO/INDEPTH Study on Adult Health and Ageing (SAGE), and the epidemiology of chronic diseases and their risk factors in low and middle-income countries within the INDEPTH Network. Participate in the interdisciplinary research Västerbotten Intervention Program, a community-based intervention program to reduce cardiovascular disease in Västerbotten County in Sweden since 90s. Member of Centre for Global Health Research steering group, theme leader in the "Epidemiological Transition" research at the centre and managing editor of Global Health Action open-access journal.

Maria Nilsson. PhD. Research areas: tobacco prevention and policy, climate change and health. Also attached to the Unit of research, education, development and public health 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. Research on risk markers for CVD and type 2 diabetes, both metabolic and life style risk markers. Also involeved in the project "Ageing and Living Conditions", Centre for Population studies, Umeå University. Medical coordinator of Västerbotten Intervention Programme.

Annika Nordström. PhD. Senior lecturer in public health. Studies on hazardous alcohol use related to health, social factors and gender. Attached to the Unit of research, education, development and public health at Västerbotten County Council.

Katrina Nordyke. R.N., MPH, PhD student. Doctoral studies on: "Mass screening for celiac disease. A public health intervention from the perspectives of the participants and society."

Fredrik Norström. PhLic. in Mathematical Statistics. Statistical consultant and lecturer in Biostatistics. Doctoral studies in "Is mass screening for celiac disease a wise use of resources?", focusing on cost-efficiency of a mass-screening for celiac disease using health economic tools.

Lennarth Nyström. Senior professor in epidemiology, Senior lecturer in biostatistics. Research is focused on the evaluation of the efficacy and effectiveness of mammography screening in Sweden and cost-effectiveness of treatment of hypertension in Västerbotten. Other research includes epidemiological studies of asthma, diabetes, epilepsy and multiple sclerosis. Also involved in studies of reproductive health (including HIV) in Zimbabwe and Tanzania and environmental tobacco smoking in Indonesia.

Monica Nyström. Organizational behavior and management in health service organizations, with a special interest in leadership, organizational development, quality improvement and organizational innovation and learning processes. Currently leading five research projects (VINNVÅRD, VINNOVA, SFO-V) focusing on building organizational structures and processes that enhances sustainable learning, innovation, development and improvement in complex organizational systems. Also leading the project Strategies for improving the care of older people Works part time with her main employment at Medical Management Centre at Karolinska Institutet

Raman Preet. Dentist, MSc in dental public health and MPH. Part time course coordinator, global health for medical students. Research interests in oral public health, tobacco control and health policy.

Karl-Erik Renhorn. Research Manager. Provides information, advice and support in relation to external funding to the researchers at Umeå Centre for Global Health Research. Together with administrative resources at the centre, part of a team that supports the production of research applications to major funders like the European Commission, National Institutes of Health in the United States, major private grant sources, and national research funding

agencies. Also assists researchers in the management of research projects. Another important part of my work is "research intelligence", finding advance information and contacts relating to research funding.

Joacim Rocklöv. PhD in environmental health, trained in mathematics and statistics. Enrolled in several projects focusing on the health effects related to weather and climate. He has been appointed theme leader for the climate change and global health theme within the Umeå Centre of Global Health Research. Also active in teaching in biostatistics and epidemiology.

Anna Rosén. MD, Resident physician in Clinical genetics, PhD-student in Epidemiology and Global Health, Doctoral studies on mass screening for celiac disease utilizing a combination of qualitative, epidemiological and genetic research methods. Also attached to the department of Medical and Clinical genetics. Lecturer in Qualitative research methodology, Clinical genetics and Genetic epidemiology.

Klas-Göran Sahlén. R.N, PhD. Studies in the area of aging, prevention and health economics. Lecturer in two subjects; health economics, and qualitative methods.

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

Ailiana Santosa. PhD student. Physician by training and MPH-graduate. Working in the Umeå Centre for Global Health Research on epidemiological transition in Sweden and low- and middle income countries.

Rainer Sauerborn. MD,PhD. Guest Professor of Climate Change and Global Health. Is Director of department, Institute of Public Health, University of Heidelberg, Germany.

Barbara Schumann. MPH, PhD. Post-doc research fellow. Epidemiologist with a background in psychology and public health. She deputy theme leader of the theme "Climate change and health" within the Umeå Centre for Global Health Research. Research interests: Climate change and health in the Arctic circumpolar region; analysis of longterm records of climate and mortality.

Berndt Stenberg. 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. Senior professor in biostatistics. Statistical consultant in several epidemiological and medical research projects. Giving courses in biostatistics on various levels. Chairman of the Program Council for Master in Public Health.

Hans Stenlund. Post-doc in the DengueTools project. PhD in organic chemistry, trained in Chemometrics which is an interdisciplinary research field including statistics, mathematics, chemistry and computer science applied within sciences like biochemistry and medicine. Is experienced working with the whole chain from setting up statistical experimental designs to analysis of large sets of multivariate data. Also active in teaching and consulting.

Ann Sörlin. PhD**,** Physiotherapist, master in sports medicine. Studies on gender equality and health.

Stephen Tollman. (MA MPH MMed PhD), Guest Professor, directs the Medical Research Council/Wits University Rural Public Health and Health Transitions Research Unit (Agincourt) in rural northeast South Africa. In the context of a rapidly transitioning society, his research is on burden of chronic diseases, strengthening of chronic primary health care systems, and population dynamics. Founding Board chair of the INDEPTH Network (2002-2006). Leads Network efforts in Adult Health and Aging.

Stig Wall. Senior Professor of epidemiology and health care research. Chief Editor, Global Health Action. 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.

Johannah Wegerdt. Johannah Wegerdt is Project Manager for two European Union funded projects. Her duties include supporting the coordinators with the day-to-day management of the projects and ensures communication within the consortia. She compiles the reports and deliverables to send to the European Union and organises consortium meetings. She does general administration and reviews the financial progress.

Anna Westerlund. Project assistant.

Annelies Wilder-Smith. Guest professor. Principal investigator within the EU-supported project "Innovative tools and strategies for surveillance and control of dengue", StopDengue.

Birgitta Åström. Administrative coordinator for the Swedish Research School for Global Health. Administrator for postgraduate education and PhD-scholarships. Involved in the collaborative work with Indonesia. Representative for the working environment at the department.

Ann Öhman. Professor in public health with special reference to gender and health. Theme manager of the research theme Gender and Global Health within Umeå Centre for Global Health Research. Research manager for the project SHY; Stress and Health among Youth, for the project Gender equality in Swedish working life and for the project Men, Health and Masculinities in a Latin-American context. Theme manager for the theme Gender and Violence within the research programme Challenging Gender at Umeå University. She is also director of Umeå Centre for Gender Studies.

2. Research activities in Sweden and around the world

Our research activities are characterised by group work across disciplines, cultures and geography. Epidemiological reasoning and methodologies are central to disease surveillance, in the search for risk factors as well as in the planning and evaluation of intervention programmes. Studies can be thought about 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. Umeå Centre for Global Health Research is actively involved in the process of supporting collaborating partners within the INDEPTH network to utilize INDEPTH surveillance data in cross site analysis.

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 concerned with the social patterning of health and disease. It aims to characterise, quantify and analyse social stratification of health and health care, focusing on the maldistribution 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 developing country experiences. Social epidemiology is also concerned with the social consequences of disease and prevention. Both quantitative and qualitative data and methods are used in analyses of social, cultural and gender differences in health. The unfair distribution of health and its prerequisites across different social strata is a central concern for social epidemiology.

Evaluative research

is 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 and implementation of inproved methods in health care. Particularly in poorer countries where resources are limited, planning for health must be based on knowledge at the population level, including information regarding the non-users of health services. Applications relating to mother and child health, nutrition, infectious diseases, and the evaluation of primary health care are particularly relevant.

Crossing boundaries

Most of our projects are part of international or national collaborations and cross not only the boundaries of aetiological,

social and evaluative research, but also other boundaries. Our research is usually multi-disciplinary and originates within different occupational areas, research paradigms, cultures and contexts. Accordingly, it is not easy to give a systematic overview.

Thinking in previous decades tended to group epidemiological issues as local (to a particular institution) or international (meaning a setting quite different from the institution). Gradually this polarised way of thinking has become more integrated, leading to the relatively new paradigm of "global health" which is taken to be geographically inclusive.

This global conceptualisation of epidemiological research, in which a range of diseases, social factors and health services interact with a variety of populations, is reflected in our new institutional title "Epidemiology and Global Health". Västerbotten County, Sweden as a country, to say nothing of our long-standing partner countries such as Ethiopia and Vietnam, are all part of our global purview.

Working together globally to meet health challenges

Health – of individuals, communities and nations – is a global matter. So says Professor Peter Byass, Director of the FAS Centre for Global Health Research at Umeå University. Health also can't be separated from history, geography, gender, politics and economics, making it a truly multidisciplinary domain.

The FAS Centre established in Umeå in 2007 is based at the Unit for Epidemiology and Global Health, which grew up around a number of international research projects and collaborations dating from the 1980s, under the leadership of Professor Stig Wall.

The world continues to be a fundamentally unequal place – including inequalities in the ways that people's health is recorded. Thus we know much less about the health of poorer people. Long-standing research collaborations at Umeå have involved developing extensive field databases to fill some of these knowledge gaps, often in collaboration with the INDEPTH Network (www.indepth-network.org). The Unit's well-established international Master of Public Health and PhD programmes continue to build considerable professional capacity for this around the world.

Asked "What is Global Health?", Peter Byass takes a very inclusive viewpoint. "Sweden and Scandinavia are just as much part of the globe as anywhere else!", he says, "and we are interested in the health of people everywhere, from Arctic reindeer herders to African subsistence farmers – and affluent city-dwellers".

The new challenges of climate change for human health form part of the Centre's research agenda. As accredited participants within the United Nations Framework Convention on Climate Change (www.unfccc.int), Umeå researchers are engaging with policy makers on the health consequences of possible changes in climate.

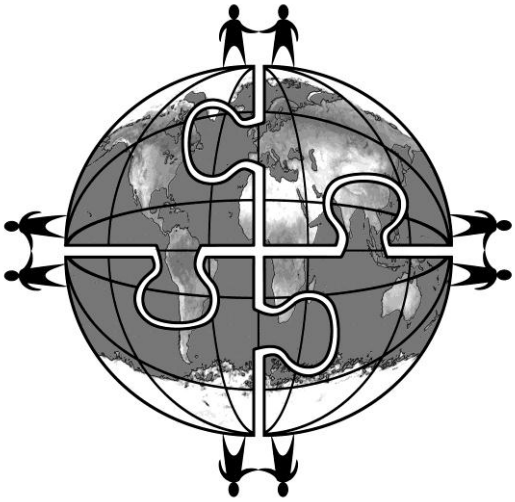
At the same time, the Centre works closely with international agencies such as the World Health Organization (www.who.int), contributing scientific expertise in specialised fields such as cause-of-death determination and the global burden of pregnancy-related mortality.

"Being supported as a FAS Centre is very important for our work," explains Peter Byass. "It provides resources which we can use in a catalytic way to generate project funding from external sources such as the European Union." The Centre's productivity in terms of published papers is also increasing substantially year-on-year.

Making research findings available to other researchers and policy makers globally is also a challenge which the Umeå Centre is addressing. "Many institutions around the world simply cannot afford subscriptions to access research results that are not made freely available," points out Peter Byass. For that reason, in 2008 the Centre launched an ambitious new open-access journal, *Global Health Action* (www.globalhealthaction.net), which has now successfully published a wide range of work and is listed in all the major science research indexes. Chief Editor Stig Wall says "Anyone, anywhere can freely access what we publish, via the internet – this is a huge advance for global health".

The FAS Umeå Centre for Global Health Research has an exciting future ahead, bringing rigorous research methods to bear on fundamental issues for human life and health around the world.

More details of the Centre's work can be found at www.globalhealthresearch.net, and specific enquiries directed to global.health@epiph.umu.se.



Theme I: Epidemiological Transitions

Research in theme I intends to challenge the current understanding of epidemiological transitions. Through projects focusing on the development and application of innovative methodologies and the measurement, prediction and evaluation of population health changes, this theme seeks to enrich the capacity for an empirical evidence base for epidemiological transitions theories. Research conducted in this theme falls in two sub-themes:

(i) Methods in transition
This sub-theme aims to advance the development, application and evaluation of evidence-based common methodologies and standardized approaches in population health measurement in low and middle-income settings. It facilitates interchanges between countries and over time and contributes to the theoretical modeling of modern phases of the epidemiological transition.

(ii) Understanding transition
This sub-theme aims to gain a more empirical understanding of the patterns and dynamics of demographic, health and epidemiological transitions globally, through collaboration with institutions in developed countries as well as the INDEPTH network of Health and Demographic Surveillance Sites (HDSS) in many low- and middle-income countries in Africa and Asia.

In 2011, we have increased our effort to strengthen and to build our internal capacity as well as capacity for scientists working in developing countries. We have developed new research collaborations and continued to disseminate our research findings through peer-reviewed publications and seminars.

Capacity building

PhD student **-** Four PhD students were registered in Theme 1 during 2010-2011. *Anand Khrisnan*, from India, works on gender inequality in child survival in India with a focus on describing gender specific child mortality rates in India in the last 40 years and identifying the determinants of gender inequality in child mortality. *Hirve Siddhivinayak*, from India, focuses on the integration of ageing research into ongoing demographic surveillance systems. The project assesses health, quality of life and wellbeing among older adults in India, its relation with subsequent mortality, and validation of health measurements. *Cahya Utami Pujilestari*, from Indonesia, studies the burden of diabetes and its risk factors in Indonesia, and exploration of lay perceptions on diabetes in the population. *Ailiana Santosa*, from Indonesia, explore and evaluate the epidemiological transition theory using the rich historical Swedish register database on risk factors, morbidity and mortality. In collaboration with Theme 5, this theme also hosts *Hii Yien Ling*, a PhD student from Malaysia, who is developing a climate index as an early warning tool for dengue prevention and control in Singapore. Within the collaboration framework with the African Population and Health Research Center (APHRC) and Theme 5, two potential PhD students from APHRC will develop their PhD proposal on outdoor air pollution and mortality (*Thaddaeus Egondi*) and on indoor air pollution and pregnancy outcomes (*Kanyiva Muindi*) in 2012.

Methodological courses for PhD student – Together with Theme 3, we develop and deliver the multilevel analysis course since 2010. This course will be transformed into an online course in 2012. We will also develop a new course on Advanced Methods for Social Epidemiology in 2012.

Research projects

The EPI4 Project - Peter Byass, Stig Wall, Lars Weinehall, and Nawi Ng work together with colleagues from Karolinska Institute, Göteborg University, Uppsala University, and four partner institutions in China, India, Indonesia and Vietnam in the Epi4 project. The project, funded by SIDA (2011-2013), aims to formulate strategies for policy makers in intensifying the efforts to achieve health-related MDGs in four countries with developing economies. In Indonesia, the Epi4 team has established interdisciplinary country network to elaborate the inequity issues related to subnational MDG achievements and to identify the disadvantaged population for whom policy to strengthen the achievement of MDG should be focused. Several network meetings have been conducted in 2011. The team is currently working on three literature reviews on maternal health, child health, and tuberculosis; and secondary data analysis on child malnutrition and adolescent reproductive health. The project is led by Prof. Vinod Diwan from Karolinska, with Nawi Ng as one of the co-PIs and is funded by SIDA (2011-2013).

Public Health Preparedness Project in Vietnam - The same team is also involved in SIDA-funded research collaboration (2010-2012) with Hanoi Medical University to develop public health preparedness and responses to global health issues. Hoang Van Minh, our PhD-graduate, is the PI in Hanoi Medical University, and Kim Bao Giang, our MPH-graduate, acts as project manager.

Verbal Autopsy - In collaboration with partners at the Agincourt HDSS site at Wits University School of Public Health in South Africa, Theme I members Peter Byass and Lucia D'Ambruoso, Ed Fottrell and Malin Eriksson (UMU), and Kathy Kahn, Steve Tollman, Mark Collinson, Ryan Wagner, Rhian Twine and Xavier Gómez-Olivé (Wits) have embarked upon a programme of work to develop and evaluate verbal autopsy (VA) for widespread population health application. The work responds to WHO's current effort to develop VA for use in routine settings. To date, VA has been developed and applied mainly for research purposes, where additional information is typically available to supplement analysis. In routine settings, this information may be unavailable or lacking. In the routine application of VA, the collection of a simple set of additional information may therefore help develop basic public health understandings of deaths.

In December 2011 a positional paper entitled "Extending verbal autopsy into routine settings: collecting information on background characteristics of deaths" was submitted to WHO as part of their consultation to simplify the standard VA instruments. The paper provided a conceptual model of the determination of outcomes as the basis of a short set of questions on the social processes of care seeking and utilization at and around the time of death. Concurrently, the next version of the InterVA interpretive model has been also developed. InterVA 4 will implement the new WHO short-form VA tool and be available both in a computer-based batch-processing version and in a hand-held version that will capture VA data at the point of interview and process cause of death output.

Migration and HIV in South Africa – Mark Collinson is co-PI of a grant awarded by the Center for AIDS Research (CFAR), National Institutes of Health, USA, looking at migration, HIV and socio-economic change in South Africa. The PI is Michael White. The project will add significantly to knowledge about migration-HIV interrelationships by designing an improved methodology for identifying and contacting migrants to minimize sample loss and plan a full research program suitable for NIH funding.

Research dissemination

Peer-reviewed articles **-** Peter Byass, Edward Fottrell, Mark Collinson, and Stephen Tollman published a series of articles on verbal autopsy in Population Health Metrics. Nawi Ng worked together with colleagues in Southeast Asia on a review article on chronic diseases in Southeast Asia in Lancet. Fikru Tesfaye contributed to the Global Burden of Metabolic Risk Factors of Chronic Diseases Collaborating Group, which conducted systematic analysis of health examination surveys and epidemiological studies among 5.4 million participants and published several peer-reviewed articles on national, regional, and global trends in risk factors in Lancet. Altogether, members of Theme 1 published a total of 54 articles in peer-review journal in 2011.

Meetings and conferences **-** Peter Byass and Edward Fottrell presented at and chaired sessions at an international congress on verbal autopsy methods in Indonesia in February 2011. Edward Fottrell was an invited presenter to a CDC/WHO workshop on measuring maternal mortality in Atlanta, USA in September 2011 and the 7th European Tropical Medicine and International Heath Conference in Barcelona in October 2011, representing UCGHR on all occasions. In December 2011, Peter Byass and Edward Fottrell participated in a WHO expert review of verbal autopsy methods in Geneva, working closely with the Health Metrics Network, the WHO Department of Measurement and Health Information Systems, the International Classifications of Disease (ICD) working group and the INDEPTH network.

Awards **-** In 2011, Mark Collinson received an award for dedication and achievement in research by the University of the Witwatersrand's Faculty of Health Sciences. He conducts an international research and research-training programme on migration, urbanisation and health.

Research Collaboration

Edward Fottrell continued to build links and synergies between UCGHR and UCL through collaboration on a successful EU grant with WITS University in South Africa and through ongoing development of VA methods. Edward now lead a Wellcome Trust Strategic Award working group on cause of death in which we are analysing large datasets of neonatal mortality from 7 sites in 4 countries using the InterVA methodology – this work is feeding into the ongoing development of the InterVA tool.

Nawi Ng collaborates with the WHO colleague in the Department of Measurement and Health Information Systems, World Health Organization, Geneva in the WHO Study on Global AGEing and Adult Health (SAGE) at INDEPTH Network and at national levels. To date, seven students in the Master of Public Health program in Umeå University are using the secondary data from the SAGE study for their master thesis.

Contact: Nawi Ng
nawi.ng@epiph.umu.se

Theme II: Life-course perspective on health interventions

Research in this theme focuses on the design, implementation and evaluation of health interventions that target different stages of the life course, from the unborn child to old age, taking into account social contexts and gender aspects, in both advantaged and disadvantaged communities.

Theme II is an umbrella of over 20 health interventions and associated with theme research projects conducted in Sweden and abroad. Building on the accumulated 25 year experience in health interventions, we aim to develop Umeå University's competitive advantage in research on and practice in this area.

Capacity building

In 2011, Theme II continued capacity-building through the organization of cross-disciplinary educational seminars, development of international collaborations, and support of PhD students, as described below.

Cross-disciplinary seminars **-** A number of methodological seminars on health psychology, behavioural sciences,

social marketing, and adoption of innovations were held by the invited speakers from other departments at Umeå University.

International collaboration **-** A contact has been established with two groups working with intervention design and evaluation in Great Britain, namely Centre for the Evaluation of Public Health Interventions at London School of Hygiene & Tropical Medicine, and the Cardiff School of Social Sciences, Cardiff University.

Moreover, one of our doctoral students, Kristina Edvardsson was invited to Mother and Child Health Research (MCHR) Centre in the Faculty of Health Sciences, La Trobe University, Australia for a research visit as part of her PhD-training. The overall purposes for the visit were to gain international experience and add international research collaboration to the study into the implementation of a Swedish multi-sectoral child health promotion programme (the Salut Programme).

The MCHR and department of Epidemiology and Global Health do have several common research interests, amongst other things implementation of guidelines in maternal and child health care settings. By participating in the centre's programme for doctoral students as well as other centre activities, the visit has facilitated an increased knowledge on issues of major public health importance for parents and their children, improved methodological skills and language competence. Furthermore, the research visit has also led to co-publications and the establishment of an international research collaboration that has extended to involve researchers from other departments at Umeå University, Karolinska Institutet and Dalarna University.

Support of sandwich PhD students **-** In 2011, Theme II financed a part of the pilot intervention *"Screening of women for intimate partner violence at an outpatient department in Temeke District hospital, Dar es Salaam"*. Tanzania, carried out by Rose Laisser. The study was included in her thesis "Prevention of intimate partner violence – Community and healthcare workers perceptions in urban Tanzania" (Paper IV) and was published in Global Health Action 2011,4:7288. Rose Laisser defended her thesis in December 2011 with Professor Katarina Hjelm from Linné University as opponent.

The grant financed Dr Hussein Kidanto's visit to Umeå to plan and initiate an evaluation of actions taken after the *"Criteria-based audit on management of eclampsia patients at a tertiary hospital in Dar es Salaam, Tanzania*" (Published in BMC Pregnancy and Childbirth 2009;9:13). Data has now been collected and will soon be analysed.

The grant covered the cost during Endy Prawirohartono's stay in Sweden January-March 2012 to write the cover story and defend his licentiate on "*Prenatal zinc and viatmen A supplementation. A study of the impact of prenatal micronutrient supplementation in rural Indonesia*". Licentiate Thesis, March 2012, Umeå University.

The grant to Hana Taha covered a 1-month stay at the department for supervision by her co-supervisor Lennarth Nyström on her doctoral thesis "*Unnecessary deaths. Exploring experiences on breast cancer and health-seeking behaviours in Jordan*". Her thesis is based on evaluation of educational campaigns and knowledge-translation activities to encourage women to practice breast self-examination and to seek breast health early.

The grant covered the cost for Elli Nur Hayati during her stay in Umeå January-April 2012 while she was working with her PhD project *"Domestic violence in rural Indonesia"*. The project aims to contribute to a better understanding of women's experiences and perceptions of domestic violence in Indonesia and to identify feasible preventive strategies at the community level, especially focusing on men's involvement as health promoters for prevention.

Project progress

Consisting of researchers involved in various health interventions, Theme II prioritises supporting individual projects. The progress of some of the projects in 2011 is presented below in alphabetical order.

Creating health enabling neighborhoods by mobilizing social capital – the significance of gender -In a previous cross-sectional study from the Umeå region, the association between neighborhood specific social capital and self-rated health was investigated (Eriksson et al., 2011). The results showed a positive effect on self-rated health of living in a high social capital neighborhood for women, but not for men. Social capital mobilization is believed to contribute to the creation of health enabling neighborhoods. However, further knowledge is needed on what constitutes equal and gender sensitive health enabling environments. In this qualitative focus group study we follow up the results from our previous cross-sectional study. Our overall aim is to explore what constitutes a health enabling neighborhood for males and females respectively. Further, our aim is to contribute to a gendered analysis of social capital in small area neighborhoods, i.e. how gender relations influences women's and men's involvement and expectations in the living environment. Data consists of eight focus group discussions, stratified by sex on perceptions about what constitutes a health enabling living environment. Ongoing analyses follow a grounded theory situational analysis.

ETICS - The ETICS-study – *Exploring the Iceberg of Celiacs in Sweden* – is part of the European project PreventCD, which focuses on investigating the possibility of celiac disease primary prevention. A two-phased celiac disease screening of 12-year-olds born in 1993 and 1997 has been performed, and the study was finalized during 2011. The study constitutes the base for further research on celiac disease screening as a public health intervention. Through different methods several aspects of screening have been investigated, and during 2011 results have been published in peer-reviewed journals (Rosen et al., 2011; Norström et al., 2011; Webb et al., 2011; Norström et al., 2011; Högberg et al., 2011; Rosen et al., 2011; Nordyke et al., 2011).

'Nteshembo' - Improving adolescent health and interrupting mother-infant transfer of health risk in sub-Saharan Africa – a planned primary prevention project in South Africa - This interdisciplinary multi-country collaboration in South Africa includes researchers from the universities in South Africa, USA, UK, Sweden and the INDEPTH network. The Ntshembo consortium aims to develop a series of interventions which will improve reproductive health and nutrition, and reduce overweight among adolescent girls in Agincourt district, Mpumalanga Province, before and during pregnancy, and importantly, in their off-spring. The entire program of work for 'Ntshembo' (which means 'Hope' in Shangaan, the local language) is not yet funded, but we meet regularly to move our work forward; in May 2011 we met in Cambridge, UK. In 2011, the 'Physical activity' study (access/barriers), and the 'Cultural Beliefs and Practices' study (sex/pregnancy/delivery/infant care and feeding) were carried out, along with the ongoing studies on nutrition and on adolescents' use of health-services. The interventions will be piloted, and then evaluated through a community randomized trial. Scale-up of any successful interventions will take place through pre-existing health system structures in Mpumalanga Province, more widely in South Africa, and – through the INDEPTH network – we hope in other African countries too.

Palestina diabetes project - In a collaboration project with researchers from Birzeit University, during 2011 we completed the study protocol of a study on health care services, disease control and complications among type 2 diabetes mellitus patients in the Ramallah governorate, West Bank. The study will combine quantitative and qualitative methods. A pilot study was done during December 2011.

Primary weight maintenance - The *Primary weight maintenance project* studies, using both qualitative and quantitative methods, the attitudes, behaviors, strategies and surrounding circumstances that are of importance for maintaining weight, in a Swedish and a US middle-aged population. This project is based on data from the Västerbotten Intervention Programme, conducted in the Västerbotten County, and data from the Health Census Survey, conducted in Upstate New York. These two programmes are similar in design. The two latest studies within the project are based on a questionnaire survey

that was distributed in 2009 to approximately 4100 Swedish and 3500 US participants. The results from the Swedish survey will hopefully be published in the fall of 2012. Data from the US study will be analyzed in Cooperstown (Upstate New York) by members from both the Swedish and the US research group in the summer of 2012. The gathered results of all the studies within the project will hopefully contribute to suggestions on how future interventions for prevention of overweight and obesity could be designed.

Salut **-** Studies within the Salut Child-Health Intervention Programme focus on the pregnant woman's and her partner's health, lifestyle and life situation with follow-ups of the infants', adolescents', and parents' after childbirth. The research also focuses on the implementation and dissemination process. During 2011 the Salut team has performed interdisciplinary cross-sectional and qualitative studies and published them in peer-review journals (Eurenius et al., 2011; Edvardsson et al., 2011; Edvardsson et al., 2011). It has also initiated preparing for the follow-ups during childhood and adolescence in the whole county of Västerbotten.

SIMSAM **-** The Umeå *SIMSAM* Network focuses on microdata research on childhood for lifelong health and welfare and is financed by the Swedish Research Council from 2009-2013 through the Swedish Initiative for research on Microdata in the Social and Medical Sciences (SIMSAM). During 2011 the Umeå SIMSAM Network has continued to produce interdisciplinary register-based studies in peer-review journals (www.simsam.org.umu.se). The network was successfully evaluated on the basis of a written scientific report and a mid-term evaluation conducted by an international evaluation panel on behalf of the funding agency. Also a common national SIMSAM web page was established: http://simsam.nu.

VINNVÅRD **-** Two projects connected to department of Epidemiology and Global Health and Theme II has received financial support from the Vinnvård programme for the period 2007-2012. The project "*Towards sustainability in innovations and organizational learning in health care"* has entered its final phase in 2011 with data analysis and reporting. Two writing trips were carried out with the funding from Theme II, resulting in a number of scientific articles (Edvardsson et al., 2011a; Edvardsson et al., 2011b; Höög et al., submitted).

The project *"National Guidelines for Lifestyle Interventions - the challenge to use evidence in clinical practice"* has the aim to sustain implementation of knowledge in health care organisations and to explore the innovation of National Guidelines for Lifestyle Interventions at different levels – from development to implementation and use in primary health care. In one of its' four projects, the research group wanted to assess the organizational readiness for change to identify the preconditions for the implementation in the health care organisations. With co-financing from Theme II, a questionnaire to physicians, nurses and heads of units in primary health care was developed and implemented in two Swedish county councils during 2011. The data will result in a research report (in Swedish) and a scientific publication.

Vitamin D deficiency in Northern Sweden **-** This is an epidemiological study of Swedish and Immigrant populations with three sub-studies. Cross-sectional data on D-vitamin levels among adult immigrants from Middle East and Africa were collected during Sept 2009- June 2010. During 2011 preliminary analyses showed that D-vitamin levels generally are low in both men and women in this population. During 2011 an intervention study was planned according to regulations for pharmacological studies and GCP, approval was given from the Regional Ethical Board and the Swedish Medical Products Agency. The design is an open randomised study with four groups where different doses of D-vitamin are given to in total 150 study subjects. The data collection started in October 2011 and will be finalized May 2012.

Västerbotten Intervention Programme **-** Several members of Theme II are involved in the implementation and evaluation of the *Västerbotten Intervention Programme* (VIP). Started in 1985, VIP targets cardio-vascular diseases in the adult population of the Västerbotten County. The

25 year long history of the VIP as well as the first results of the newly started comprehensive evaluation of the VIP were proudly presented to the Editor of Lancet, Richard Horton. The meeting was organized by and held at the Västerbotten County Council on the 6th of December 2011 and was attended by decision-makers, practitioners and researchers. The reflections from the discussion were integrated in the two manuscripts to be submitted in spring 2012. A number of preceding studies analyzing the effect of the intervention on the VIP participants was published in 2011 in peer-reviewed journals (Norberg et al., 2011; Ng et al., 2011; Blomstedt et al., 2011).

Richard Horton (second from the right) with the presenters Lars Weinehall, Margareta Norberg and Yulia Blomstedt

Contact: Yulia Blomstedt
yulia.blomstedt@epiph.umu.se

Theme III: Strengthening primary health care: the roles of rights, ethics and economic analyses

Core values and principles in primary health care

The research in this theme is designed to inform key decision-makers involved in actions and interventions to strengthen primary health care in poor and rich countries, through projects stemming from integrated rights-based approaches and economic analyses. Our research is mainly operational using multidisciplinary methods and underpinned by the values and principles expressed in primary health care (Fig 1) focusing on the functions of health systems as articulated by WHO. The research group is interdisciplinary and includes doctoral students based in India, Iran, Cambodia, Colombia, Peru, Guatemala, Ethiopia, Zambia, Tanzania, South Africa, Germany and Sweden. During 2011 three of our PhD students, from Tanzania, Cameroon and Vietnam, successfully defended their work.

Core values and principles in Primary Health Care

Local governance and participation:

We follow a line of research that aims to improve the understanding of inclusion and equity of health systems through active local citizen participation, and build regional capacity to monitor and improve governance and equity within local health systems

One of the key elements of primary health care is social participation. However, different stakeholders understand it in very different ways. An ongoing study Guatemala aims to analyze the way social participation processes work within the health system on a municipality level and aims to improve the quality and the level of local participation.

In 2010 we (members of themes III and IV) started a collaboration with the Andean Plan for Adolescent Pregnancy Prevention with the aim to enhance knowledge regarding youth participation, youth friendly services, and masculinities in the region. The research project focused on Ecuador and Perú and field work was locally funded through an agreement with the United Nations Population Fund and

Family Care International. We visited Ecuador and Peru twice for data collection and sharing progress of the project. After two years of research we have produced six academic manuscripts that are now under review and one report in Spanish directed towards policy makers. We also arranged a final visit to share the results with national stakeholders and young activists. During this visit results were shared with the National Council for Adolescent Pregnancy Prevention in Ecuador; additionally, and together with national institutions and organizations, we facilitated a two days workshops with young activists from Ecuador and Perú. The collaboration might continue in terms of advising on a planned study exploring the connections between sexual violence and adolescent pregnancies in Ecuador.

Meeting with young activists in Ecuador

Priority setting and fair procedures:

Studies apply cost-effectiveness analysis and other priority-setting tools within the frame of fair procedures. We are interested in the process of reaching a reasonable public consensus about priorities within the health system.

2011 was the final year for the EU funded project REACT (REsponse to ACcountable priority setting for Trust in health systems). This was an action research study aiming to capture potentials and challenges of implementing explicit and fair priority setting framework, "Accountability for Reasonableness", in the contexts of poor resource settings and week democratic institutions in Tanzania, Kenya and Zambia. Findings were disseminated during the Annual Joint Scientific Conference in Arusha, Tanzania 5-7 April 2011. A special session is planned during the second Health Systems Research Symposium in Beijing in November 2012.

In Västerbotten county council a priority setting model combining vertical, department-based priority setting with horizontal, trans-departmental priority setting and finally a political decision is being followed and evaluated.

Service delivery and human resources:

Our research focus on service delivery to marginalised groups such as elderly, children and young people, migrants and those affected by stigmatising diseases. Human resources are key to quality care and we have a developed a special interest in the role of mid-level workers.

A study funded by Swedish Institute for Communicable Disease Control was during 2011 looking at prevention of HIV and other sexually transmitted infections among migrants in Sweden. From 2012 this project will continue within a consortium funded by the European Refugee Fund and focus on asylum seekers´ experiences and perceptions of Swedish health care.

All over the world the number of elderly people is increasing. 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. "Improving Access to and Use of Research Results for Developing Health Policies and Models of Community-based Care for Older People in Vietnam" is a partner driven collaboration financed by SIDA launched in 2011. The main partners are Hanoi Medical University in Vietnam and Umeå University (Epidemiology and Global Health and Nursing Care). The start of the project was a workshop hosted by Umeå University from April 11-13, 2011. The objectives of the workshop were: (a) to discuss about roles, responsibilities and collaborating mechanisms between partners; (b) study experiences from elderly care in Sweden; and (c) discuss research

and training collaborations between project partners.

Health workforce deficits pose a critical constraint to health system performance in many countries, and a strong case has been built for the use of mid-level health workers to address deficits in human resource for health. Auxiliary nurses and health extension workers are utilized as front-line health workers in Guatemala and Ethiopia providing primary care in rural communities. In 2011 special emphasis has been given to the role of the health extension workers in malaria control and skilled delivery attendance in the northern region of Tigray, Ethiopia. In Guatemala a multiple case study was conducted in rural health posts to identify the mechanisms through which supervision support health workers´ performance.

Other activities during the year…

We have led an external evaluation of the People's Health Movement aiming to increase its effectiveness as a global actor for change in support of the right to health. The People's Health Movement (PHM) is a global movement and network that unites health activists, organisations, and academic institutions from around the world in its aim to achieve 'health for all'. PHM has a presence in around 70 countries.

In September 2011, a visit was made to Ghandi Institute of Medical Sciences (MGIMS), Wardha district, Maharashtra state. The purpose of the visit was to plan for collaborative activities with a health institution where Gandhi's values are present and applied. The institute have longstanding experiences of community based health care delivery and innovative health insurance schemes.

Contact: Anna-Karin Hurtig
anna-karin.hurtig@epiph.umu.se

Theme IV – Gender and Health

Health conditions in the world are strongly gendered and it is vital to include both women and men in global health research. Gender is therefore one of the most important analytical categories (or variables) in research about human beings and their social conditions. The Millennium Development Goals address gender analysis as of utmost importance for the development of global health, and The WHO emphasises that gender is one of the most important aspects of global public health and a prerequisite for a positive development of global public health. Gender perspectives have been central to the research environment at our unit since the 1990s. There is still a need for theory development and integration of gender theory into research on global public health. Gender based violence and gendered ill-health practices are areas where interventions and preventive programs need to be implemented in health care practice. The overall aim of on-going and planned research is to generate new knowledge on gender and health and to support health development. The theme uses empirical data from a variety of sources. One of our basic aims is to develop research designs that combine qualitative and quantitative approaches. The theme now works mainly with two subthemes:

A. Sexual and reproductive health and rights in culturally different settings

The aim is to focus on gender based violence and further investigate strategies and interventions to reduce GBV. Men and masculinity in gender based violence is scarcely studied internationally and therefore we focus on men's role in preventing GBV.

B. Social organisation, gender equality and health

The aim is to investigate gender related factors on social organisation and gender (in)-equality that create health/ill-health. To specifically develop theoretical understandings of social capital, paid and unpaid work and health care organisations and their impact of gendered health outcomes.

The year 2011 passed on with concentration on publishing results from our different research projects. Members of the theme contributed in several ways to disseminate results from our research through workshops, conference presentations, PhD courses and public lectures. The PhD course Global Health and Gender was given for the

second time and gathered students from several countries and universities.

The theme arranged a seminar at the Medical Faculty with open lectures to disseminate results from our research. The title for the seminar was Gender and Health and the audience came from a variety of disciplines and departments, as well as from international collaborating partners. At the seminar, a guest lecture under the title "Gender based violence, gender equity and HIV: understanding the connections" was held by Professor Rachel Jewkes from South Africa; a world leading gender researcher on violence against women. The following presentations were held by theme members:
Rose M. Laisser - Feasibility, benefits and challenges of routine screening for abuse to women in Tanzania –a pilot study
Felix Kisanga - Child sexual abuse: perceptions and experiences of survivors regarding the handling of sexual offences in urban Tanzania
Maria Wiklund - Close to the Edge. Discursive, gendered and embodied stress in modern youth
Anna-Britt Coe - Gender and Youth Activism on Sexual Health in Perú and Ecuador
Isabel Goicolea - Destabilizing machismo: the struggle of young Ecuadorian men to construct more equitable masculinities
Malin Erikson - Social capital, gender and health

Two PhD students defended their doctoral theses: Ann Sörlin's dissertation with the title "Health and the elusive gender equality: Can the impact of gender equality on health be measured?" was highlighted in media for its important and interesting contributions to the debate about gender equality and health. Mariano Salazar defended his thesis named "Intimate partner violence in Nicaragua: studies on ending abuse, child growth, and contraception". It contains a comprehensive study design that combines longitudinal health surveillance data with in-depth qualitative approaches to shed light on women's decision processes to end intimate partner violence (IPV).

Mariano Salazar's thesis defense

Ann Sörlin's thesis defense

Several members of the the theme are also members of the international network named 'Violence against women –*VAW', a* global research collaboration involving three Swedish universities; Uppsala, Umeå and Linköping.

The vision statements are continuous work in progress but at the moment we formulate it "to disseminate results on gender and global health in order to improve the health for both women and men, girls and boys, as well as to contribute to the global development of gender sensitive health policies and interventions".

We developed our publication strategy by negotiating with Global Health Action to publish a Cluster of Papers on gender and health during 2012. The following topics will be covered: Masculinities and global health, Health services research, Policies and best practice, Gender sensitive interventions, Embodiment and gender, Structure, agency, gender and youth, Social capital, health and gender, Gender based violence.

Contact: Ann Öhman
ann.ohman@epiph.umu.se

Theme V: Climate change and health

The overall aim of the research conducted within the theme V is to strengthen the knowledge of how climate change will affect the health of populations in the world, and build capacity, competence and knowledge to mitigate and adapt to climate induced risks.

Theme V has several focuses of research:

- Mortality related to weather, air pollution, climate extremes and climate change in LMICs as well as in Sweden
- Heat exposure and impacts on health of working people and productivity
- Climate change and health in the Arctic
- Climate change and ageing populations
- Climate change and epidemiological transitions from a historical perspective in Sweden
- The role of climate and socioeconomic change such as global mobility for vector-borne diseases
- Early warning systems to vector-borne diseases

In addition to these research areas, theme members are also active in cross-cutting and theme-overarching activities, such as policy work, teaching and communication with the public and scientists both nationally and internationally. For example, we are active in the annual COP meetings, and several representatives of the theme have important roles in the development of the fifth IPCC assessment report. An overview of theme V researchers is presented in table 1.

The year 2011 can be summarized as a successful year for the theme in moving towards a more defined research agenda with several internal research projects. It has been a year for building capacity in form of networks, personnel and external funding that made, and that will continue to make, possible research outcomes originating from the theme. It has also been a year where a younger leadership and research platform have been established, and activities have escalated originating from the seeds planted during the start phase of the theme, and from the intensive work of all involved.

Activities in the seven research areas include the following:

A modeling workshop was held in Nouna, Burkina Faso, involving a number of INDEPTH sites. Joacim Rocklöv and Rainer Sauerborn were key facilitators of this meeting. The objective was to start the process of a supplement of publications using INDEPTH HDSS data to better understand the fatal effects of weather, climate extremes and climate change in LMICs. Simultaneously, studies and collaborations on heat and cold were conducted in high income settings. An important collaboration with the Ageing and Living Conditions Programme at Umeå University was initiated on climate change and ageing populations.

Theme V and theme I started collaboration through a joint research agenda and supervision of doctoral students in collaboration with the African Public Health Centre in Nairobi, Kenya, on urban environment and health. Two doctoral students were identified and the process of formal registration began in 2011. The recruitment of another doctoral student in collaboration with Vadu HDSS in India was also initiated from the INDEPTH project.

The group continues to collaborate with the Unit of Occupational and Environmental Medicine at Umeå University, where several projects related to weather, climate and climate change are conducted. The collaboration is in the form of supervision of doctoral students, as well as joint proposals for research grants.

The group continues to develop new methodologies for occupational heat exposure and impact assessment within the international collaboration programme Hothaps (High Occupational temperature health and productivity suppression), which was initiated by Tord Kjellström and is funded partly by the UCGHR grant, a new South Africa collaboration grant, and funds from Norway, New Zealand and Australia. Field studies of heat at the workplace, health and productivity in Africa, Asia and Latin America were developed, involving Costa Rica, South Africa, Cameroon,

Nigeria, India, Thailand and Nepal. The Hothaps programme developed a software and downloading process that can analyse weather station data in a way that quantifies heat exposure and potential impacts on working people, whether employed or in traditional subsistence work. Measurements of actual impacts on local people have been carried out in the field studies. During this year, an international project was continued towards a global agreement on the optimal quantification of occupational heat stress in different settings.

Doctoral student Jennifer Crowe has a project which focuses on heat effects on the health status of workers in Costa Rica.

Research collaboration was developed with theme I within UCGHR and close collaboration with the University of Tromsö, Australian National University and Lund University. A postdoc position was granted for 2012 and 2013 through the strategic funds of UCGHR.

Intensive cooperation continues with Tromsö University, Norway as well as with partners at the CDC Alaska, USA.

Maria Furberg finalised her PhD project on perceptions of climate change in the Sami population. Christina Hedlund was accepted in early 2011 as a doctoral student affiliated to the theme. Her research focuses on surveillance of infectious diseases in the North in collaboration with the Center for Disease Control and Prevention, Alaska. Barbara Schumann developed and submitted research proposals on climate change perceptions in indigenous populations as well as on seroprevalences of climate-sensitive diseases. Several projects continue on climate-sensitive diseases in Sweden and the Arctic region.

A joint research agenda was initiated with the Ageing and Living Conditions programme and the UCGHR as well as the NAR (Network for Aging Research) in Heidelberg, Germany. Barbara Schumann, Joacim Rocklöv and Rainer Sauerborn were involved in this process.

Barbara Schumann in collaboration with the Demographic Database at Umeå University is in the process of analyzing historical data to study the role of climate on mortality in pre-industrial Sweden.

A large proposal was granted by the EU coordinated by UCGHR on innovative tools and strategies for surveillance and control of dengue fever. Joacim Rocklöv, Peter Byass, Rainer Sauerborn and Annelies Wilder-Smith are involved in this activity, and a postdoctoral modeler, Hans Stenlund, was hired for this project. Related to this, PhD student Yien-Ling Hii is working on a project relating weather to the incidence of dengue in Singapore, and developing an early warning for forecasting dengue outbreaks.

Cross-cutting activities

The policy issue is a central dimension of theme V, making it a cross-cutting perspective. On the international level, members of the team participates actively with leading roles in and with scientific input to the next IPCC-assessment report chapter on health. Rainer Sauerborn is one of the lead authors in IPCC WGII and other team members are contributing authors to the chapter on climate change and health.

The Umeå Centre for Global Health Research has the status of an observer organization within the United Nations Framework Convention on Climate Change (UNFCCC). Maria Nilsson as a theme V representative attended the Conference of Parties (COP17) in South Africa, 2011. Climate and health is beginning to gain traction as part of the COP process, reflected by the first “Climate and Health Summit” parallel to COP 17. Maria Nilsson, Rainer Sauerborn and Birgitta Evengård were invited participants. In connection to COP 17, a special publication with scientific articles was published in the Journal Global Health Action, guest-edited by Birgitta Evengård. The cluster of papers highlighted the effects of climate change on human health and living conditions in the Arctic region. Information about the cluster was distributed at COP17, and Birgitta Evengård presented the cluster at a side event arranged by the Swedish government.

A research course called “Climate change and health – research methods” was given in June 2011 for the second time, attracting

students from different parts of the world. The challenge of developing and adapting scientific methods for the specific requirements of research on the link between climate change and health was the focus of the course.

In November 2011, a meeting was held with the Swedish minister of environment, Lena Ek, to discuss policy issues of high priority related to the mitigation and adaptation to climate change in Sweden.

Contact: Joacim Rocklöv
***Joacim.rocklov@envmed.umu.se* and**
Barbara Schumann
Barbara.schumann@epiph.umu.se

Professors	Rainer Sauerborn
	Tord Kjellström
	Birgitta Evengård
	Annelies Wilder-Smith
Post-doctoral researchers	Joacim Rocklöv (theme leader)
	Barbara Schumann (deputy theme leader)
	Maria Nilsson
	Hans Stenlund
Doctoral students	Yien-Ling Hii
	Maria Furberg
	Christina Hedlund
	Jennifer Crowe
Visiting doctoral student	David Hondula, University of Virginia, US

Researchers active within Theme V during 2011 who have been affiliated with the Umeå Centre for Global Health Research.

3. Training at Umeå International School of Public Health

Public health program students

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 full master programmes in public health taught in English and with major recruitment from abroad, mainly from low and middle income countries. Since 2001, these activities has had the status of an international school within the university. With their strong research orientation, the programmes have retained theeir role as channels into research training.

Master Programmes in Public Health

The first courses in public health in Umeå were given in 1986. Five years later, in 1991, a master programme in public health was started. This was a one-year programme. It's structure remained basically the same until 2007, although it was of course continuously revised content wise.

In the 1990's the programme recruited an increasing number of students from low- and middle income countries. Many of these students came from our international research collaborations. This group of students has come to strongly dominate our student body.

In 2007 there was a large change of the programme. As a result of the Bologna process, but also due to student demand and a wish from the staff to be able to go deeper into different areas, the program was changed into a two-year programme with three profiles that the students could choose between – epidemiology, health systems and social conditions and health. The courses were then doubled to become 20.

This programme structure very likely would have remained basically the same at least for the coming few years had it not been for a decision on tuition fees taken by the Swedish Parliament. From the fall of 2011 non-European students have to pay tuition fees. To meet this situation we are, from the fall of 2011, offering two new programmes – both a one- year and a two-year programme. The one-year programme is equal to the first year of the two-year programme.

The Master Programme in Public Health – the first year
Global Public Health, 10 credits
Biostatistics 1, 5 credits
Epidemiology, 10 credits
Qualitative Methodology 1, 5 credits
Health Systems, 5 credits
Health Economic Evaluation Methods, 5 credits
Social Pathways in Health and Health Promotion, 5 credits
Master thesis, 15 credits
(The first year equals the one-year programme)

The Master Programme in Public Health – the second year
Evaluation in Public Health, 5 credits
Biostatistics 2, 5 credits
Advanced Methods in Epidemiology, 5 credits
Chronic Diseases Epidemiology or Advanced Topics in Health Economic Evaluation Methods, 5 credits
Social and Gender Inequalities in Global Health, 5 credits
Qualitative Methodology 2, 5 credits
Social Epidemiology, 5 credits
Health Care Management, 5 credits
Public Health Informatics, 5 credits
Master thesis, 15 credits

In the new two-year programme we are still offering all of the courses from the two-year programme that started in 2007. They have, however, been reduced in size from 7.5 ECTS credits to 5 ECTS credits. There are no longer three profiles for the students to choose between – they will take almost all of the courses.

In the fall of 2011 we registered 18 new students, which is less than half of the number of new students we have been registering each fall during the last years. We are taking a number of actions to increase recruitment in the coming fall.

Master seminars December 2011

Sources of public health programme students 1991-2011

Single subject courses

All courses within the master programme can be taken as single subject courses by students not wishing to take the whole programme. 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 research method oriented courses, such as *Qualitative Methodology, Epidemiology* and *Biostatistics,* and subject courses in e.g. health economics and health systems, as we see it as essential that these subjects are accessible to research students in adjoining disciplines.

Research training

Research students at Epidemiology and Global Health

We offer degrees in four PhD subjects: Global Health, *Epidemiology and Public Health*, *Public Health, Global Health* and *Family Medicine and Epidemiology*.

Presently (Dec 31st, 2011 59 research students are registered at the department, 25 men and 34 women (Table 5). 35 PhD students have been recruited within international research collaborations, while 24 are Swedish based research students. In the period 1987 – 2011, 78 PhD theses and seven licentiate theses were defended at the department. 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.

Dogsledging during doctoral days March 2011

Swedish Research School for Global Health

In 2008 Umeå University and Karolinska Institutet launched the Swedish Research School for Global Health with financial support from the Swedish Research Council. The two institutions have different strengths within the area of global health research and the Research school takes advantage of the different capacities and complementary competences. The main aim is to develop and strengthen the capacity for research training in global health, through multi-disciplinary collaboration in education, research and training. The specific aims of the research school are to provide courses and seminars in global health on a doctoral level, to secure a base of new generations of researchers in global health and to provide a creative environment for students and teachers.

The Research School offers a broad variety of doctoral courses comprising topics in global health, advanced method courses, professional development and thematic workshops with networking opportunities.
Students of the Research School can attend the programme's courses at the cooperative institutions and can apply for funding of external national and international courses, workshops and conferences. The possibility to have support for internationalisation has been much appreciated by students who have had the possibility to visit other research institutions and international agencies, participate in specialised courses

and disseminate their findings at international and regional conferences.

Currently 55 students have been admitted to the School and by end of 2011 12 students had successfully defended their theses.

Participants in the annual meeting in Malmö

The annual meeting 2011 took place in Malmö 19-21 of October and was hosted by Division of Social Medicine and Global Health, Lund University. Professor Fred Wabwire-Mangen, School of Public Health, Makerere University, who is part of the School´s steering group interacted with the students and gave an open lecture, "Experiences of working with global health in Africa". The meeting included also a visit to the World Health Organisation (WHO) regional office for Europe in Copenhagen where s students and supervisors within the School was introduced to the office's fields of work.

Professor Frederick Wabwire-Mangen, Makerere University

Educating the medical students

Since 2002 the division has been responsible for teaching the medical students in community medicine and since 2005 also in global health; a new course that was introduced in 2005 as a response to the request of the students. The lectures in community health have recently been moved from semester 10 to semester 5, as a consequence of the new U2007 curriculum for the medical students. The separate week in global health has also, due to the same reason, been moved from semester 9 to semester 5. The teaching in community medicine has been carried through together with the division of occupational medicine and the department of law (lectures in medical law). An important resource for the case work in global health has been the master students in public health, who have been serving as resource persons for the different countries that were used as examples in the cases.

Biomedical programme

During the first semester of the 'Biomedical programme' (180 credits), our unit is responsible for a 7-credit course in *Epidemiology and biostatistics*. In the autumn 2011 course, 44 students participated.

Table 4. Seminars at the department during 2011

January	**Gunnar Lundqvist -** Dissertation Tobaksvanor I medelåldern. Riskfaktormönster, rökstoppsattityder och erfarenheter av att sluta röka
	Kevin Noone and Astrid Auraldsson SSEESS – The Swedish Secretariat for Environmental Earth System Sciences
February	**Katrina Nordyke –** Midterm seminar Mass screening for celiac disease. A public health intervention from the perspectives of participants and society
	Zainonisa Petersen - Dissertation Smoking cessation during pregnancy. A person-centred approach among disadvantaged women in South Africa
March	**Mariano Salazar –** Pre-dissertation Intimate partner violence in Nicaragua. Studies on contraception, child growth and ending of abuse
	Stephen Maluka - Dissertation Strengthening fairness, transparency and accountability in health care priority setting at district level in Tanzania. Opportunities, challenges and the way forward
	Pham Thai Son - Midterm seminar Management of hypertension at community level in rural Vietnam – An intervention study
	Nguyen Ngoq Quang – Midterm seminar Women and hypertension in a rural area of Vietnam: Perceptions, risk factor burden and solution
	Ryan Wagner – PhD plan presentation The burden and economics of epilepsy: modeling cost-effective epilepsy interventions in sub-Saharan Africa
April	**Ann Sörlin –** Pre-dissertation Health and the elusive Gender Equality. Can the impact of gender equality on health be measured?
	Le Van Hoi – Pre-dissertation Health, needs and care for older people: A community-based study in a rural area of Vietnam
	Barnabas Njozing – Pre-dissertation Implementing collaborative activities between tuberculosis and HIV programmes in the northwest region of Cameroon
	Linda Sundberg – PhD plan presentation Development and implementation of National Guidelines in Swedish healthcare – The challenge to transform new knowledge to clinical practice
May	**Therese kardakis –** PhD plan presentation The challenge of increasing health promotion in health care
	Faustine Nkulu Kalengayi – Midterm seminar A world on the move: Challenges and opportunities for HIV/AIDS/TB care and prevention among immigrants from countries in Sub-Saharan Africa
	Mariano Salazar - Dissertation Intimate partner violence in Nicaragua. Studies on contraception, child growth and ending of abuse
	Johan Fagan Internet websites as platforms for medical education in developing countries
June	**Barnabas Njozing –** Dissertation Implementing collaborative activities between tuberculosis and HIV programmes in the northwest region of Cameroon
	Joseph Zulu – PhD plan presentation
September	**Nahed Mikki, Lars Jerdén, Margareta Norberg** Type 2 Diabetes Mellitus services, control, and complications among diabetic patients in the Ramallah governorate – West Bank: Planning and running of the project
	Ann Sörlin – Dissertation Health and the elusive Gender Equality. Can the impact of gender equality on health be measured?
October	**Le Van Hoi –** Dissertation Health for community dwelling older people: Trends, inequalities, needs and care in rural Vietnam
November	**Osama Ahmed Hassan** (Federal Ministry of Health, Khartoum, Sudan and Department of Clinical Microbiology, Division of Infectious Diseases, Umeå University) Rift Valley fever in the context of climate change and "One health"
	Cynthia Anticona – Midterm seminar Heavy metals exposure among indigenous communities of the Corrientes river basin- Perú
	Alison Hernandez - Midterm seminar Health service delivery in rural Guatemala: Supporting the performance of auxiliary nurses
	Elli Nur Hayati – Midterm seminar Domestic violance in rural Indonesia: women's experience and the role of men for prevention
	Gasto Frumence – Dissertation The role of social capital in HIV prevention: Experience from Kagera region, Tanzania
December	**Rose Laisser –** Dissertation Intimate partner violence against women in urban Tanzania. Healthcare workers and the community role in social support, care and prevention.

Table 5. Doctoral students registered at the division 2011.

Name	Professional background	Thesis subject
Cynthia Anticona	Dentist	The case of heavy metals exposure in the indigenous communities of the Corrientes River Basin, Peru.
Monika Appel	Sociologist	Creative competition or hampering hierarchy-a study concerning the academic working environment focusing on the doctoral student
Jennifer Crowe	MPH	Exposure to extreme heat in sugarcane harvesters in the face of climate change
Kristina Edvardsson	Nurse	Child health promotion and surveillance. The challenge of innovation, implementation and change
Setareh Forouzan	MD	The mental health care system responsiveness in Iran
Gasto Frumence	Political sciences *(Diss. Nov 2011)*	Explanatory factors for the observed changes in HIV prevalence and incidence in Kagera region, Tanzania, 1987-2007
Maria Furberg	MD	Climate change related aspects of health in northern Sweden
Hendrew Gekawaky	Nurse	Masculinity and HIV prevention in Dr Congo
Tesfay Gebrehiwet	MPH	Improving the utilization of maternal health care in health extension program context in Tigray region, Ethiopia
Yegomawork Gossaye	Nurse	Women's health, domestic violence and its association to adverse mental health and child survival in Ethiopia
Lena Granlund	MD	D-vitaminbrist i Norra Sverige. En epidemiologisk studie av svenska och immigrerande populationer på latitud 63-7 grader Nord
Mats Granvik	Health planner	Befolkningen och hälso- och sjukvården – om psykosociala problem, prevention, somatisering och medikalisering
Lemma Hailemariam R.	BSc Biology	Early diagnosis and prompt treatment of malaria. Implications of a new malaria control policy in Ethiopia
Elli Nur Hayati	Psychologist	Domestic violence in urban and rural Indonesia: Women´s experiences and men´s roles for prevention
Christina Hedlund	MD	Epidemiology and Surveillance of Climate sensitive Infectious Diseases in the Circumpolar area.
Alison Hernandez	Nurse	Health service delivery in rural Guatemala: Supporting the performance of auxiliary nurses
Yien Ling Hii	Nurse	Climate index as an early warning for dengue prevention and control
Siddhivinayak Hirve	MPH	Integrating aging research in demographic surveillance are as- The Vadu HDSS experience in rural district of western India
Le Van Hoi	MD (Diss. Oct. 2011)	Health, needs and care for older people: a community-based study in a rural area of Vietnam
Kerstin Hultén	Nutritionist	Breast cancer and dietary habits – an epidemiologic study of protective factors
Elisabet Höög	MA occup. psychology	Implementation challenges in health and social care organizations: Seeking obstacles, finding opportunities
Shabbir Ismail Abbas	MD, Community Health	Epidemiology of HIV/AIDS and high risk sexual behaviours among populations of Central Ethiopia
Junia Joffer	MPH	Self-rated health in adolescence – Experiences of and predictors for good health
Faustine Kalengayi	MD	A world on the move: Challenges and opportunities for HIV/AIDS/TB Prevention and care for immigrants from countries in sub-Sahara Africa
Therese Kardakis	MPH	Strengthening health promotion in health care – the organizational change challenge.
Alireza Khatami	MD	Development and validation of a disease-specific instrument for evaluation of quality of life in adult Iranian patients with acute old world cutaneous leishmaniasis
Felix Kisanga	MD	The socio-cultural context of child sexual abuse (CSA) in Tanzania: possibilities and barriers for community prevention
Anand Krishnan	MD	Gender inequity in child survival: Travails of a girl child in rural North India
Rose Laisser	Midwife *(Diss. Dec 2011)*	Health worker´s and community groups´perceptions about intimate partner violence and their roles in care and prevention in Tanzania
Utami Puji Lestari	Nurse	Risk factor of type 2 diabetes and their trends in Purworejo district, Indonesia
Kristina Lindvall	Dietician	Those who are able to be stable – Primary weight maintenance as a public health strategy for obesity prevention

Gunnar Lundqvist	MD *(Diss. Jan. 2011)*	Tobaksvanor hos medelålders västerbottningar. Risk faktormönster, rökstoppsattityder och erfarenheter av att sluta röka.
Emil Löfroth	Economist	Vem ska få behandling? Ekonomiska, etiska och epidemiologiska aspekter på fördelningen av resurser för att förebygga hjärt-kärlsjukdom.
Stephen Maluka	MA Development studies *(Diss. March 2011)*	A strategy to improve priority setting in health care institutions: capturing the potentials and challenges of implementing accountability for reasonableness at the district level in Tanzania
Paola Mosquera Mondez	MA soc policy	Learning from the experiences of comprehensive primary health care: Case Bogotá, Colombia
Anna Myleus	Medical intern	The Swedish Epidemic of Celiac Disease in Children. Aetiology and clinical expression explored by epidemiological research methods
Fredinah Namatovu	MA health and society	Exploring the multifactorial etiology of childhood celiac disease combining national registers.
Anne Neumann	Master of Med Sc	Prevention of Type 2 Diabetes Mellitus: modeling the cost-effectiveness of diabetes prevention
Per Nordin	Statistician	Kontaktgrad och vårdkonsumtion, en alternativ ansats för att belysa behov av sjukvård.
Katrina Nordyke	Nurse	Mass screening for celiac disease. A public health intervention from the perspectives of participants and society
Fredrik Norström	Statistician	Is mass screening for celiac disease a wise use of recourses?
Barnabas Nwarbébé Njozing	MD *(Diss. April 2011)*	The co-epidemic of tuberculosis and HIV/AIDS. Barriers to voluntary counselling and testing (VCT) among TB patients in the northwest province of Cameroon
Hassen Nuru	MD	Health care financing reform in Addis Ababa public sector: Does it have any implication on health resources availability....
Firdy Permana	MD	Environmental tobacco smoke exposure (ETS): children's respiratory effects and the strategy to reduce domestic exposure
Zainonisa Petersen	MsC, BA *(Diss. Febr. 2011)*	A patient-centred smoking cessation intervention – Barriers and promoting factors to smiking cessation as perceived by pregnant women
Endy Paryanto Prawirohartono	MD	Growth and health of children under tow years of age in Purworejo district, Central Java, Indonesia
Tej Ram Jan	MSc health policy	Maternal health and emergency obstetric care in Madhya Pradesh state of India: A case study of Khargoue district
Nguyen Ngoc Quang	MD	Women & hypertension in rural area of Vietnam. Perceptions, risk factors, burden and solutions
Eva Randell	MA social work	Tonårspojkars hälsa och självbild
Anna Rosén	MD	Exploring the complexity of screening detected celiac disease
Ana Lorena Ruano Salguero	Sociology	The role of social participation in promoting democratic governance in local health systems: a case study in Guatemala
Mariano Salazar	MD *(Diss. May 2011)*	A cohort study of intimate partner violence, maternal and child outcomes and ending of abuse
Ailiana Santosa	MD, MpH	Towards a better understanding of epidemiological transition, based on Sweden´s experience.
Linda Sundberg	Psychologist	Development and implementation of national clinical guidelines in Swedish healthcare. The challenge to transform new knowledge to clinical practice
Pham Thai Son	MD	Management of hypertension at community level in rural Vietnam – an intervention study
Ann Sörlin	Physiotherapist *(Diss Sept. 2011)*	Jämställdhet och hälsa – utvecklandet av ett jämställdhetsinstrument
Fatwa Sari Tetra Dewi	MD	Tobacco control activities in southern area of Java
Nguyen Thi Bic Thuan	Economist	The burden of health care expenditure on households in a rural district of Vietnam
Maj Lis Voss	Economist	Assessing pre-adolescent well-being in low income and high income countries
Ryan Wagner	MSc	The economics of epilepsy: Modeling cost-effective interventions for the treatment of epilepsy in sub-Saharan Africa.

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 have the intensively participated in the National Board of Health and Social Welfare's (Socialstyrelsen) mission in developing the new first ever National Guidelines for evidence-based disease prevention methods, completed in November 2011. Employees of Epidemiology and Global Health have also been members of the National Public Health Institute's scientific advisory board. We are 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 2010 are shown in Table 7 below.

Since 1992, we have administered the Sida-allocated Minor Field Study (MFS) scholarships given to Swedish students within the health sector or health related fields. These scholarships make it possible for them to perform a small study during a two-month period in a developing country. In 2011 nine such grants were administered by our department. Reports from all the field studies are now being published in a report series. From 2012 Sida has again approved nine grants. The assessment of applicants is performed by a committee including Kjerstin Dahlblom, Kerstin Edin and Barbro Larsson.

Table 7. Consultancy and advisory functions of staff members

Staff member	Function	Duration
Yulia Blomstedt	Coordinator Umeå Care, Västerbotten County Council	2011-2012
Peter Byass	Deputy Editor, Global Health Action	2007-
	Editorial Board, PLoS Medicine	2009-
	Chair, INDEPTH Network Cause of Death group	2008-
	Editorial Board, Population Health Metrics	
	Technical Advisory Group to the United Nations Maternal Mortality Estimation Inter-Agency Group	2011-
	Chair, INDEPTH Network Scientific Advisory Committee	2011-
Kjerstin Dahlblom	Assistant Swedish Programme Coordinator for the UNAN-León – Sida/SAREC Research Cooperation Programme	2006-2011
	Minor field study handling officer	2010-
Kerstin Edin	Scientific advisor in a reference group in the region 'Västra Götaland', Sweden, on a project about knowledge and working methods in the health care regarding partner violence and child abuse.	2010-2012
Anna-Karin Hurtig	Board member of the Swedish Social Medicine Association	2008-
Anneli Ivarsson	Scientific advisor for a Child Health Intervention Programme in Västerbotten (Salut)	2005-
	Scientific advisor for the Swedish Society for Coeliacs.	2007-
	Chair of the Working Group on Coeliac Disease for the Swedish Paediatric Association	2008-
	Member of the scientific advisory board of the Swedish National Public Health Institute	2009-
	Member of the editorial board of Global Health Action	2009-
	Leader of the Umeå SIMSAM network (register-based research connecting childhood with lifelong health and welfare).	2009-
	Leader of the National SIMSAM Network coordination	2010-
Lars Lindholm	Member of The National Public Health Institute's board for public control (insynsråd)	
Nawi Ng	Member of the editorial board of Global Health Action	2008-
Maria Nilsson	Member of the Advisory Board for the Swedish Government on Drug- and Tobacco policy	2008-
Margareta Norberg	Medical coordinator for the Västerbotten Intervention Program	2008-
Lennarth Nyström	Member of the executive Board of the European Breast Cancer Network	1998-
	Swedish representative in the International Breast Screening Network (IBSN)	1997-
	Member of the Epidemiology and Clinical Medicine priority group at the Swedish Cancer Society	2010-
Anna Rosén	Minor field study handling officer	2008-
Miguel San Sebastian	Member of the editorial board of the International Journal of Occupational and environmental health	2005-
	Editorial Board ISRN Public Health	
Berndt Stenberg	Member of the Swedish Contact Dermatitis Research Group	1986-
	Member of the executive group for the Swedish Dermato-Epidemiology Network (SweDEN)	1995-
	Member of the executive group for the Swedish Psoriasis Register (Pso-Reg)	2002-
	Country representative of the European Board of Dermatology and Venereology (EBDV)	2003
Stig Wall	Board member of the Danish National Public Health Institute	2008-
	Member of the Board of Trustees, African Public Health Research Centre, Nairobi, Kenya	2008-
	Strategic Adviser to the Umeå SIMSAM node, Swedish Initiative for research on Microdata in the Social and Medical Sciences	2008-
	Member of the reference group on research on security work at Umeå University	2009-
	Member of the US National Academy of Sciences Panel on Continuing Epidemiological Transition in Sub-Saharan Africa.	2010-
	Member of the expert committee evaluating Swedish Public Health Education	2011-12
Lars Weinehall	Member of the National Public Health Institute Scientific Advisory Board	2009-
	Priority Chairman of the National Board for Health and Social Welfare's preparation of National Guidelines for disease prevention methods	2008-
	Member of the research program Aging and Living Conditions' (ALC) Steering Group	2007-
Ann Öhman	Guest editor for a special issue in the international journal Violence Against Women.	2009
	Member of the Board for Centre for Population Studies (CBS), Umeå University	2009-

5. PUBLICATIONS

Original articles 2011-

Anticona C, Bergdahl I A, Lundh T, Alegre Y, **Sebastian M S**. Lead exposure in indigenous communities of the Amazon basin, Peru. Elsevier; International journal of hygiene and environmental health (Print). 2011;215(1):59-63.

Arnadottir S A, Gunnarsdottir E D, **Stenlund H**, Lundin-Olsson L. Determinants of self-rated health in old age : a population-based, cross-sectional study using the international classification of functioning. London: BioMed Central; BMC Public Health. 2011;11:670-.

Backé E, Seidler A, Latza U, Rossnagel K, **Schumann B**. The role of psychosocial stress at work for the development of cardiovascular diseases : a systematic review.. Berlin: Springer Berlin/Heidelberg; International Archives of Occupational and Environmental Health. 2012;85(1):67-79.

Barnett A G, Hajat S, Gasparrini A, **Rocklöv J.** Cold and heat waves in the United States. Elsevier; Environmental Research. 2012;112:218-224.

Blomstedt Y, Emmelin M, **Weinehall L.** What about healthy participants? : the improvement and deterioration of self-reported health at a 10-year follow-up of the Västerbotten Intervention Programme. Global health action. 2011;4:5435-.

Byass P, Alberts M, Burger S. Motherhood, migration and mortality in Dikgale : modelling life events among women in a rural South African community. London: Academic P.; Public Health. 2011;125(5):318-323.

Byass P, Graham W J. Grappling with uncertainties along the MDG trail. London; The Lancet. 2011;378(9797):1119-1120.

Byass P, Kahn K, Fottrell E, Mee P, **Collinson M A, Tollman S M.** Using verbal autopsy to track epidemic dynamics : the case of HIV-related mortality in South Africa.. BioMed Central; Population Health Metrics. 2011;9:46-.

Byass P, Kahn K, Ivarsson A. The global burden of childhood coeliac disease : a neglected component of diarrhoeal mortality?. PLoS ONE. 2011;6(7):e22774-.

Byass P, Sankoh O, **Tollman S M,** Högberg U, **Wall S.** Lessons from history for designing and validating epidemiological surveillance in uncounted populations. Public Library of Science; PLoS ONE. 2011;6(8):e22897-.

Byass P. The democratic fallacy in matters of clinical opinion : implications for analysing cause-of-death data. Emerging Themes in Epidemiology. 2011;8(1)

Byass P. Whither verbal autopsy?. BioMed Central; Population Health Metrics. 2011;9:23-.

Dans A, **Ng N**, Varghese C, Tai E, Firestone R, Bonita R. The rise of chronic non-communicable diseases in southeast Asia : time for action. The Lancet. 2011;377(9766):680-689.

Edvardsson K, Garvare R, **Ivarsson A, Eurenius E,** Mogren I, Nyström M. Sustainable practice change. Professionals' experiences with a multisectoral child health promotion programme in Sweden.. BioMed Central; BMC Health Services Research. 2011;11(1):61-.

Edvardsson K, Ivarsson A, Eurenius E, Garvare R, Nyström M E, Small R, et al. Giving offspring a healthy start : parents' experiences of health promotion and lifestyle change during pregnancy and early parenthood. BMC Public Health. 2011;11:936-.

Ekblom K, Marklund S L, Palmqvist R, Van Guelpen B, Hallmans G, **Weinehall L**, et al. Iron Biomarkers in Plasma, HFE Genotypes, and the Risk for Colorectal Cancer in a Prospective Setting. Diseases of the Colon & Rectum. 2012;55(3):337-344.

Ekblom K, Marklund S, Jansson J, Hallmans G, **Weinehall L,** Hultdin J. Iron stores and HFE genotypes are not related to increased risk of first-time myocardial infarction : a prospective nested case-referent study. International Journal of Cardiology. 2011;150(2):169-172.

Ekblom K, Marklund S, Jansson J, Osterman P, Hallmans G, **Weinehall L**, et al. Response to letter regarding article "Plasma bilirubin and UGT1A1*28 are not protective factors against first-time myocardial infarction in a prospective nested case-referent setting". Circulation. 2011;4(1):e2-.

Elvander C, **Högberg U**, Ekéus C. The influence of fetal head circumference on labor outcome : a population-based register study. Acta Obstetricia et Gynecologica Scandinavica. 2012;91(4):470-475.

Engström K S, Wennberg M, Strömberg U, Bergdahl I A, Hallmans G, Jansson J, et al. Evaluation of the impact of genetic polymorphisms in glutathione-related genes on

the association between methylmercury or n-3 polyunsaturated long chain fatty acids and risk of myocardial infarction : a case-control study.. BioMed Central; Environmental health. 2011;10:33-.

Eriksson M, Holmgren L, **Janlert U**, Jansson J, Lundblad D, Stegmayr B, et al. Large improvements in major cardiovascular risk factors in the population of northern Sweden : the MONICA study 1986-2009. Journal of Internal Medicine. 2011;269(2):219-231.

Eriksson M, Ng N, Weinehall L, Emmelin M. The importance of gender and conceptualization for understanding the association between collective social capital and health : a multilevel analysis from northern Sweden. Social Science and Medicine. 2011;73(2):264-273.

Eriksson M. Social capital and health : implications for health promotion. Global health action. 2011;4:5611-.

Eurenius E, Lindkvist M, Sundqvist M, **Ivarsson A,** Mogren I. Maternal and paternal self-rated health and BMI in relation to lifestyle in early pregnancy: The Salut Programme in Sweden. Stockholm: Taylor & Francis; Scandinavian Journal of Public Health. 2011;39(7):730-741.

Flytström I, **Stenberg B**, Svensson A, Bergbrant I. Patients' Visual Analogue Scale : A Useful Method for Assessing Psoriasis Severity.. Acta Dermato-Venereologica. 2011;

Forouzan A S, Ghazinour M, Dejman M, Rafeiey H, **San Sebastian M.** Testing the WHO responsiveness concept in the Iranian mental healthcare system : a qualitative study of service users. BioMed Central; BMC Health Services Research. 2011;11(1):325-.

Fottrell E, Kahn K, Tollman S, Byass P. Probabilistic methods for verbal autopsy interpretation : InterVA robustness in relation to variations in a priori probabilities. Public Library of Science; PLoS ONE. 2011;6(11):e27200-.

Fottrell E, Tollman S, Byass P, Golooba-Mutebi F, **Kahn K**. The epidemiology of 'bewitchment' as a lay-reported cause of death in rural South Africa. BMJ Publishing Group; Journal of Epidemiology and Community Health. 2011;

Fottrell E. Advances in verbal autopsy : pragmatic optimism or optimistic theory?. BioMed Central; Population Health Metrics. 2011;9:24-.

Frumence G, Eriksson M, Nyström L, Killewo J, Emmelin M. Exploring the role of cognitive and structural social capital in the declining trends of HIV/AIDS in the Kagera region of Tanzania : A grounded theory study. Grahamstown, South Africa: NISC; African Journal of AIDS Research. 2011;10(1):1-13.

Furberg M, Evengård B, **Nilsson M**. Facing the limit of resilience : perceptions of climate change among reindeer herding Sami in Sweden.. Häggeby: Co-Action publishing; Global health action. 2011;4(8417):11-.

Gustafsson P E, **Janlert U,** Theorell T, Westerlund H, Hammarström A. Social and material adversity from adolescence to adulthood and allostatic load in middle-aged women and men : Results from the Northern Swedish Cohort. Springer; Annals of Behavioral Medicine. 2012;43(1):117-128.

Gustafsson P E, **Janlert U,** Theorell T, Westerlund H, Hammarström A. Social and material adversity from adolescence to adulthood and allostatic load in meddle-aged women and men : results from the Northern Swedish cohort. Annals of Behavioral Medicine. 2011;

Gustafsson P, **Janlert U**, Theorell T, Westerlund H, Hammarström A. Socioeconomic status over the life course and allostatic load in adulthood : results from the Northern Swedish Cohort. Journal of Epidemiology and Community Health. 2011;65:986-992.

Hammarström A, Gustafsson P, Strandh M, Virtanen P, **Janlert U**. It´s no surprise! Men are not hit more than women by the health consequences of unemployment in the Northern Swedish Cohort. Scandinavian Journal of Public Health. 2011;39(2):187-193.

Hammarström A, Virtanen P, **Janlert U.** Are the health consequences of temporary employment worse among low educated than among high educated?. Oxford: Oxford University Press; European Journal of Public Health. 2011;21(6):756-761.

Hellquist B N, Jonsson H, **Nyström L**. Unclear methods in estimate of screening effect in women ages 40-49 years Author Reply. Cancer. 2012;118(4):1170-1171.

Hellquist Numan B, Duffy S W, **Nyström L,** Jonsson H. Overdiagnosis in the population-based service screening programme with

mammography for women aged 40 to 49 years in Sweden. Journal of medical screening. 2012;19(1):14-19.

Hellquist Numan B, Duffy S, Abdsaleh S, Björneld L, Bordás P, Tabár L, et al. Effectiveness of population-based service screening with mammography for women ages 40 to 49 years: evaluation of the Swedish Mammography Screening in Young Women (SCRY) cohort. Cancer. 2011;117(4):714-722.

Hii Y, Rocklöv J, Ng N. Short term effects of weather on hand, foot and mouth disease. PLoS ONE. 2011;6(2):e16796-.

Högberg L, Webb C, Fälth-Magnusson K, Forslund T, Magnusson K, Danielsson L, et al. Children with screening-detected coeliac disease show increased levels of nitric oxide products in urine. Acta Paediatrica. 2011;100(7):1023-1027.

Hoi L V, Tien N T, Tien N V, Dung D V, Chuc N T, **Sahlen K G,** et al. Willingness to use and pay for options of care for community-dwelling older people in rural Vietnam. London: BioMed Central; BMC Health Services Research. 2012;12:36-.

Hoi L V, Tien N T, Tien N V, Dung D V, Chuc N T, **Sahlen K,** et al. Willingness to use and pay for options of care for community dwelling older people in rural Vietnam. BioMed Central; BMC Health Services Research. 2012;12:36-.

Holmström A, Oudin A, de Luna X, Nilsson K, Lindgren U, Bergdahl I, et al. SIMSAM-nätverket i Umeå strävar mot att bli ett framstående center för registerforskning som knyter samman barndomen med livslång hälsa och välfärd. SVEPET - Medlemstidning för Svensk Epidemiologisk Förening. 2011;29(3):8-9.

Hutajulu S H, **Ng N,** Jati B R, Fachiroh J, Herdini C, Hariwiyanto B, et al. Seroreactivity against Epstein-Barr virus (EBV) among first-degree relatives of sporadic EBV-associated nasopharyngeal carcinoma in Indonesia.. Journal of Medical Virology. 2012;84(5):768-76.

Jat T R, **Ng N, San Sebastian M.** Factors affecting the use of maternal health services in Madhya Pradesh state of India : a multilevel analysis. BioMed Central; International Journal for Equity in Health. 2011;10(1):59-.

Jerdén L, Burell G, **Stenlund H, Weinehall L**, Bergström E. Gender differences and predictors of self-rated health development among Swedish adolescents. Journal of Adolescent Health. 2011;48(2):143-150.

Kaiser N, **Nordström A,** Jacobsson L, Renberg E S. Hazardous drinking and drinking patterns among the reindeer-herding Sami population in Sweden. Substance Use & Misuse. 2011;46(10):1318-1327.

Karlsson B, **Lindkvist M,** Lindkvist M, Karlsson M, Lundström R, Håkansson S, et al. Sound and vibration : effects on infants' heart rate and heart rate variability during neonatal transport. Wiley; Acta Paediatrica. 2012;101(2):148-154.

Kisanga F, **Nyström L**, Hogan N, Emmelin M. Child sexual abuse : community concerns in urban Tanzania. Journal of Child Sexual Abuse. 2011;20(2):196-217.

Kjellström T, Crowe J. Climate change, workplace heat exposure, and occupational health and productivity in Central America. International journal of occupational and environmental health. 2011;17(3):270-81.

Laisser R M, **Nyström L**, Lindmark G, Lugina H I, Emmelin M. Screening of women for intimate partner violence : a pilot intervention at an outpatient department in Tanzania. Global health action. 2011;4

Laisser R M, **Nyström L**, Lugina H I, Emmelin M. Community perceptions of intimate partner violence : a qualitative study from urban Tanzania. BMC Women's Health. 2011;11:13-.

Lemma H, **Löfgren C, San Sebastian M**. Adherence to a six-dose regimen of artemether-lumefantrine among uncomplicated Plasmodium falciparum patients in the Tigray Region, Ethiopia. Malaria Journal. 2011;10:349-.

Lemma H, **San Sebastian M, Löfgren C,** Barnabas G. Cost-effectiveness of three malaria treatment strategies in rural Tigray, Ethiopia where both Plasmodium falciparum and Plasmodium vivax co-dominate. BioMed Central; Cost Effectiveness and Resource Allocation. 2011;9:2-.

Lestari T, Probandari A, **Hurtig A,** Utarini A. High caseload of childhood tuberculosis in hospitals on Java Island, Indonesia : a cross sectional study. BMC Public Health. 2011;11(784):7-.

Lilja M, Rolandsson O, **Norberg M**, Söderberg S. The iImpact of Leptin and Adiponectin on incident type 2 Diabetes is modified by sex and insulin resistance. Metabolic Syndrome and Related Disorders. 2012;10(2):143-151.

Linder J, Wenngren B, **Stenlund H**, Forsgren L. Impaired oculomotor function in a community-based patient population with newly diagnosed idiopathic parkinsonism. Journal of Neurology. 2011;

Lindqvist P, Nasiell J, **Högberg U**. [Vasa praevia test can save lives in Swedish maternity wards]. Läkartidningen. 2011;108(4):150-151.

Lundqvist L, **Stenlund H**, Laurell G, Nylander K. The importance of stromal inflammation in squamous cell carcinoma of the tongue. Wiley-Blackwell; Journal of Oral Pathology & Medicine. 2012;41(5):379-383.

Madhavan S, Schatz E, Clark S, **Collinson M**. Child mobility, maternal status, and household composition in rural South Africa. Demography. 2012;

Maluka S, **Hurtig A, Sebastián M**, Shayo E, Byskov J, Kamuzora P. Decentralization and health care prioritization process in Tanzania : from national rhetoric to local reality. International Journal of Health Planning and Management. 2011;26(2):e102-e120.

Maluka S, Kamuzora P, **San Sebastián M**, Byskov J, Ndawi B, Olsen Ö, et al. Implementing accountability for reasonableness framework at district level in Tanzania : a realist evaluation. Implementation Science. 2011;6(11)

Månsdotter A, Lundberg M, **Lindholm L.** How does gender equality progress link to alcohol care and death? : A registry study of the Swedish parental cohort of 1988/1989. Basingstoke: Palgrave Macmillan; Journal of Public Health Policy. 2012;33(1):105-118.

Nasreen H, Nahar S, Al Mamun M, Afsana K, **Byass P**. Oral misoprostol for preventing postpartum haemorrhage in home births in rural Bangladesh : how effective is it?. CoAction Publishing; Global health action. 2011;4:7017-.

Ng N, Johnson O, Lindahl B, **Norberg M**. A reversal of decreasing trends in population cholesterol levels in Västerbotten County, Sweden.. Global health action. 2012;5

Ng N, Söderman K, **Norberg M, Öhman A**. Increasing physical activity, but persisting social gaps among middle-aged people : trends in Northern Sweden from 1990 to 2007. Global health action. 2011;4:6347-.

Ng N, Hakimi M, **Santosa A, Byass P,** Wilopo SA, **Wall S.** Is self-rated health an independent index for mortality among older people in Indonesia? PLoS One. 2012;7(4):e35308. Epub 2012 Apr 16.

Nguyen Q N, Pham S T, Nguyen V L, **Wall S**, **Weinehall L**, Bonita R, et al. Implementing a hypertension management programme in a rural area : local approaches and experiences from Ba-Vi district, Vietnam.. BioMed Central; BMC Public Health. 2011;11:325-.

Njozing B N, Edin K E, San Sebástian M, Hurtig A. "If the patients decide not to tell what can we do?" : TB/HIV counsellors' dilemma on partner notification for HIV. BMC International Health and Human Rights. 2011;11(6)

Njozing B N, **Edin K E, San Sebastián M, Hurtig A.** Voices from the frontline : counsellors' perspectives on TB/HIV collaborative activities in the Northwest Region, Cameroon. BMC Health Services Research. 2011;11:328-.

Nkulu Kalengayi F K, **Hurtig A**, Ahlm C, Krantz I. Fear of deportation may limit legal immigrants' access to HIV/AIDS-related care : a survey of Swedish language school students in Northern Sweden. Journal of Immigrant and Minority Health. 2012;14(1):39-47.

Norberg M, Lindvall K, Jenkins P L, Emmelin M, **Lönnberg G**, Nafziger A N. Self-rated health does not predict 10-year weight change among middle-aged adults in a longitudinal population study. London: BioMed Central; BMC Public Health. 2011;11(748):9-.

Norberg M, Lundqvist G, **Nilsson M**, Gilljam H, **Weinehall L**. Changing patterns of tobacco use in a middle-aged population : the role of snus, gender, age, and education.. Global health action. 2011;4:5613-.

Norberg M, Malmberg G, **Ng N,** Broström G. Who is using snus? - Time trends, socioeconomic and geographic characteristics of snus users in the ageing Swedish population. London: BioMed Central; BMC Public Health. 2011;11:929-.

Nordyke K, Norström F, **Lindholm L**, Carlsson A, Danielsson L, Emmelin M, et al. Health-related quality-of-life in children with coeliac disease, measured prior to receiving their diagnosis through screening.. Royal Society of Medicine Press; Journal of Medical Screening. 2011;18(4):187-192.

Norström F, **Ivarsson A,** Lindholm L, Carlsson A, Danielsson L, Högberg L, et al. Parents' willingness to pay for coeliac disease screening of their child. Journal of Pediatric Gastroenterology and Nutrition - JPGN. 2011;52(4):452-459.

Nygren K, Bergström E, **Janlert U**, Nygren L. Parents matter : but relations to parents do not explain gender differences in self-reported health in adolescents. Scandinavian Journal of Caring Sciences. 2012;

Nygren K, **Janlert U**, Nygren L. Norm compliance and self-reported health among Swedish adolescents. Scandinavian Journal of Public Health. 2011;39(1):44-50.

Obando Medina C, **Dahlblom K**, Dahlgren L, Herrera A, Kullgren G. I keep my problems to myself : pathways to suicide attempts in Nicaraguan young men. Suicidology Online. 2011;2:17-28.

Ohlsson L, Israelsson A, Öberg Å, Palmqvist R, **Stenlund H**, Hammarström M, et al. Lymph node CEA and MUC2 mRNA as useful predictors of outcome in colorectal cancer. International Journal of Cancer. 2012;130(8):1833-1843.

Oudin Åström D, Bertil F, **Joacim R**. Heat wave impact on morbidity and mortality in the elderly population : a review of recent studies. Maturitas. 2011;69(2):99-105.

Pham S T, Nguyen Q N, Viet N L, Khai P G, **Wall S, Weinehall L,** et al. Prevalence, awareness, treatment and control of hypertension in Vietnam-results from a national survey.. Nature Publishing Group; Journal of Human Hypertension. 2011;

Prawirohartono E P, **Nyström L, Ivarsson A, Stenlund H,** Lind T. The impact of prenatal vitamin A and zinc supplementation on growth of children up to 2 years of age in rural Java, Indonesia.. Cambridge: Cambridge University Press; Public Health Nutrition. 2011;14(12):2197-2206.

Probandari A, Utarini A, **Lindholm L, Hurtig A.** Life of a partnership : The process of collaboration between the National Tuberculosis Program and the hospitals in Yogyakarta, Indonesia.. Oxford; Social Science and Medicine. 2011;73(9):1386-94.

Rocklöv J, **Wilder-Smith A.** Climate change and vector-borne infections : Comment on "Modeling the impact of global warming on vector-borne infections" by Eduardo Massad, Francisco Antonio Bezerra Coutinho, Luiz Fernandes Lopez and Daniel Rodrigues da Silva.. Physics of life reviews. 2011;8(2):204-205.

Rosén A, Emmelin M, Carlsson A, Hammarroth S, Karlsson E, **Ivarsson A**. Mass screening for celiac disease from the perspective of newly diagnosed adolescents and their parents : A mixed-method study. BMC Public Health. 2011;11:822-.

Rosén A, Ivarsson A, Nordyke K, Karlsson E, Carlsson A, Danielsson L, et al. Balancing health benefits and social sacrifices : a qualitative study of how screening-detected celiac disease impacts adolescents' quality of life.. BMC Pediatrics. 2011;11:32-.

Ruano A L, **Dahlblom K, Hurtig A**, San Sebastián M. 'If no one else stands up, you have to' : a story of community participation and water in rural Guatemala.. Global health action. 2011;4:6412-.

Ruano A L, **Sebastián M S, Hurtig A.** The process of social participation in primary health care : the case of Palencia, Guatemala. Health Expectations. 2011;

Sahlen K, Löfgren C, Brodin H, Dahlgren L, **Lindholm L**. Measuring the value of older people's production : a diary study. London: BioMed Central; BMC Health Services Research. 2012;12:4-.

Sankoh O, Ijsselmuiden C, Cravioto A, **Tollman S**, Herbst K, Juvekar S, et al. Sharing the research data to improve public health : a perspective from the global south. The Lancet. 2011;3789789):401-402.

Santosa A, Öhman A, Högberg U, **Stenlund H**, Hakimi M, **Ng N.** Cross-sectional survey of sexual dysfunction and quality of life among older people in Indonesia. Journal of Sexual Medicine. 2011;8(6):1594-1602.

Sartorius B, **Kahn K, Collinson M A**, Vounatsou P, **Tollman S M**. Survived infancy but still vulnerable : spatial-temporal trends and risk factors for child mortality in the Agincourt rural sub-district, South Africa, 1992-2007. Geospatial health. 2011;5(2):285-295.

Schölin A, **Nyström L,** Arnqvist H, Bolinder J, Björk E, Berne C, et al. Proinsulin/C-peptide ratio, glucagon and remission in new-onset type 1 diabetes mellitus in young adults. Diabetic Medicine. 2011;28(2):156-161.

Schumann B, Kluttig A, Tiller D, Werdan K, Haerting J, Greiser K H. Association of childhood and adult socioeconomic indicators with cardiovascular risk factors and its modification by age : the CARLA Study 2002-2006.. BMC public health. 2011;11:289-.

Schumann B, Seidler A, Kluttig A, Werdan K, Haerting J, Greiser K. Association of occupation with prevalent hypertension in an elderly East

German population : an exploratory cross-sectional analysis. International Archives of Occupational and Environmental Health. 2011;84:361-369.

Sjögren K, **Lindkvist M**, Sandman P, Zingmark K, Edvardsson D. Psychometric evaluation of the Swedish version of the Person-Centered Care Assessment Tool (P-CAT). Cambridge University Press; International psychogeriatrics. 2012;24(3):406-415.

Sorensen J, Jenkins P, Emmelin M, **Stenlund H, Weinehall L**, Earle-Richardson G, et al. The social marketing of safety behaviors : a quasi-randomized controlled trial of tractor retrofitting incentives. American Journal of Public Health. 2011;101(4):678-684.

Sörlin A, Lindholm L, Ng N, Öhman A. Gender equality in couples and self-rated health : a survey study evaluating measurements of gender equality and its impact on health. International Journal for Equity in Health. 2011;10(37):1-11.

Sörlin A, Öhman A, Blomstedt Y, Stenlund H, Lars L. Measuring the gender gap in organizations. Bingley: Emerald; Gender in Management. 2011;26(4):275-288.

Sörlin A, Öhman A, Lindholm L. Sickness absence in gender-equal companies : a register study at organizational level. BMC Public Health. 2011;11:548-.

Stenman K, Stattin P, **Stenlund H,** Riklund K, Gröbner G, Bergh A. 1H HRMAS NMR Derived Bio-markers Related to Tumor Grade, Tumor Cell Fraction, and Cell Proliferation in Prostate Tissue Samples. Libertas Academica Ltd; Biomarker Insights. 2011;6:39-47.

Tawatsupa B, Lim L L-Y, **Kjellström T,** Seubsman S, Sleigh A. Association Between Occupational Heat Stress and Kidney Disease Among 37 816 Workers in the Thai Cohort Study (TCS). Japan Epidemiological Association; Journal of Epidemiology. 2012;

Thomsen S, Hoa D T, Målqvist M, Sanneving L, Saxena D, Tana S, et al. Promoting equity to achieve maternal and child health. Reproductive health matters. 2011;19(38):176-182.

Van Minh H, **Ng N, Byass P, Wall S.** Patterns of subjective quality of life among older adults in rural Vietnam and Indonesia.. Wiley-Blackwell; Geriatrics & Gerontology International. 2011;

Vergnano S, **Fottrell E**, Osrin D, Kazembe P N, Mwansambo C, Manandhar D S, et al. Adaptation of a probabilistic method (InterVA) of verbal autopsy to improve the interpretation of cause of stillbirth and neonatal death in Malawi, Nepal, and Zimbabwe.. BioMed Central; Population Health Metrics. 2011;9:48-.

Verguet S, Jassat W, Hedberg C, **Tollman S**, Jamison D T, Hofman K J. Measles control in Sub-Saharan Africa : South Africa as a case study. Oxford: Elsevier; Vaccine. 2012;30(9):1594-1600.

Waenerlund A, Virtanen P, Hammarström A. Is temporary employment related to health status? : Analysis of the Northern Swedish Cohort. Sage Publications; Scandinavian Journal of Public Health. 2011;39(5):533-539.

Webb C, Halvarsson B, **Norström F, Myléus A,** Carlsson A, Danielsson L, et al. Accuracy in Celiac Disease Diagnostics by Controlling the Small-bowel Biopsy Process.. Lippincott Williams & Wilkins; Journal of Pediatric Gastroenterology and Nutrition - JPGN. 2011;52(5):549-553.

Wennberg M, Bergdahl I, Hallmans G, **Norberg M**, Lundh T, Skerfving S, et al. Fish consumption and myocardial infarction : a second prospective biomarker study from northern Sweden. American Society for Nutrition; American Journal of Clinical Nutrition. 2011;93(1):27-36.

Wiklund P, **Nordström A**, Jansson J, **Weinehall L,** Nordström P. Low bone mineral density is associated with increased risk for myocardial infarction in men and women. London: Springer; Osteoporosis International. 2012;23(3):963-970.

Wilder-Smith A, Renhorn K, Tissera H, Abu Bakar S, Alphey L, Kittayapong P, et al. DengueTools : innovative tools and strategies for the surveillance and control of dengue. Järfälla: CoAction Publishing; Global health action. 2012;5:1-9.

Winkler V, **Ng N,** Tesfaye F, Becher H. Predicting lung cancer deaths from smoking prevalence data. Elsevier; Lung Cancer. 2011;

Ådén E, Carlsson M, Poortvliet E, **Stenlund H**, Linder J, Edström M, et al. Dietary intake and olfactory function in patients with newly diagnosed Parkinson's disease : a case-control study.. Nutritional neuroscience. 2011;14(1):25-31.

Ärlestig L, Mullazehi M, Kokkonen H, **Rocklöv J**, Rönnelid J, Rantapää Dahlqvist S. Antibodies against cyclic citrullinated peptides of IgG, IgA and IgM isotype and rheumatoid factor of IgM

and IgA isotype are increased in unaffected members of multicase rheumatoid arthritis families from northern Sweden. BMJ Publishing Group; Annals of the Rheumatic Diseases. 2011;

Öhman A, Åström L, Malmgren-Olsson E. Feldenkrais(®) therapy as group treatment for chronic pain : a qualitative evaluation. Journal of Bodywork & Movement Therapies. 2011;15(2):153-161.

Other publications 2011

Maluka S. Strengthening fairness, transparency and accountability in health care priority setting at district level in Tanzania : opportunities, challenges and the way forward. [Thesis]. Umeå: Umeå universitet; 2011. Umeå University medical dissertations, 1407.

Petersen Z. Smoking cessation during pregnancy : a person-centred approach among disadvantaged women in South Africa. [Thesis]. Umeå: Umeå universitet; 2011. Umeå University medical dissertations, 1398.

Lundqvist G. Tobaksvanor i medelåldern : riskfaktormönster, rökstoppsattityder och erfarenheter av att sluta röka. [Thesis]. Umeå: Umeå universitet; 2011. Umeå University medical dissertations, 1344.

Laisser R M. Prevention of intimate partner violence : community and healthcare workers´ perceptions in urban Tanzania. [Thesis]. Umeå: Umeå university; 2011. Umeå University medical dissertations, 1460.

Kalengayi F N, Hurtig A, Ahlm C, Krantz I. Fear of deportation may limit legal immigrants' access to HIV/AIDS-related care - a survey of Swedish language school students in Northern Sweden. In: Special Issue: Abstracts of the 7th European Congress on Tropical Medicine and International Health. 3-6 October 2011 Barcelona, Spain.. Oxford, England: Blackwell Science; 2011. 16p. 350-351. Tropical Medicine & International Health, Vol. 16 Suppl. 1.

Frumence G. The role of social capital in HIV prevention: experiences from the Kagera region of Tanzania. [Thesis]. Umeå: Department of Public Health and Clinical Medicine, Umeå university; 2011. Umeå University medical dissertations, 1453.

Greiser K H, Tiller D, Kuss O, Kluttig A, Rudge G, **Schumann B**, et al. Association of neighbourhood socioeconomic status and individual socioeconomic status with cardiovascular risk factors in an Eastern German population : the CARLA Study 2002–2006. In: IEA World Congress of Epidemiology, 7–11 August 2011, Edinburgh International Conference Centre, Edinburgh, Scotland Programme and abstracts. 2011. 65(A249)p. A249-. The Journal of Epidemiology and Community Health, Vol. 65 Suppl. 1.

Van Hoi L. Health for community dwelling older people : trends, inequalities, needs and care in rural Vietnam. [Thesis]. Umeå: Umeå University; 2011. Umeå University medical dissertations, 1437.

Ng N, Hakimi M, Wilopo S, **Byass P, Wall S**. Does education modify the association between self-rated health and mortality among older people in Indonesia?. In: IEA World Congress of Epidemiology, 7–11 August 2011, Edinburgh International Conference Centre, Edinburgh, Scotland: Programme and abstracts. 2011. 65p. A438-. Journal of Epidemiology and Community Health, Vol. 65 Suppl. 1.

Sörlin A. Health and the elusive gender equality. : Can the impact of gender equality on health be measured?. [Thesis]. Umeå: Umeå universitet; 2011. Umeå University medical dissertations, 1420.

Salazar Torres V M. Intimate partner violence in Nicaragua : studies on ending abuse, child growth, and contraception. [Thesis]. Umeå: Umeå universitet; 2011. Umeå University medical dissertations, 1411.

Doctoral Theses 1987-2011

1. **Rosén M**. Epidemiology in planning for health: with special reference to regional epidemiology and the use of health registers. 1987. Umeå University Medical Dissertation New Series No 188.
2. **Sandström A**. Epidemiology at a smeltery: Changing patterns concerning occurrence, work environment, smoking and risk perceptions over six decades. 1992. Umeå University Medical Dissertation New Series No 353.
3. **Shamebo D**. Epidemiology for public health research and action in a developing society: the Butajira Rural Health Project in Ethiopia [Eds Wall S, Freij L, Muhe L, Sandström A]. 1992. Umeå University Medical Dissertation New Series No 360.
4. **Brännström I**. Community participation and social patterning in cardiovascular

disease intervention. 1993. Umeå University Medical Dissertation New Series No 383.

5. **Muhe L.** Child health and acute respiratory infections in Ethiopia: Epidemiology for prevention and control. 1994. Umeå University Medical Dissertations New Series No 420.
6. **Killewo J.** Epidemiology towards the control of HIV infection in Tanzania with special reference to the Kagera region. 1994. Umeå University Medical Dissertations New Series No 421.
7. **Stenberg B**. Office illness: The worker, the work and the workplace. 1994. Umeå University Medical Dissertations New Series No 399.
8. **Bergström E.** Cardiovascular risk indicators in adolescents: the Umeå Youth study. 1995. Umeå University Medical Dissertations New Series No 448.
9. **Lindholm L.** Health economic evaluation of community-based cardiovascular disease prevention: Some theoretical aspects and empirical results. 1996. Umeå University Medical Dissertations New Series No 449.
10. **Wulff M**. Reproductive hazards in an industrial setting: An epidemiological assessment. 1996. Umeå University Medical Dissertations New Series No 489.
11. **Barnekow Bergkvist M**. Physical capacity, physical activity and health: A population based fitness study of adolescents with an 18 year follow-up. 1997. Umeå University Medical Dissertations New Series No 494.
12. **Forsberg B.** Urban air quality and indicators of respiratory problems. 1997. Umeå University Medical Dissertations New Series No 522.
13. **Weinehall L**. Partnership for health: On the role of primary health care in a community intervention programme. 1997. Umeå University Medical Dissertations New Series No 531.
14. **Ibrahim MM.** Child health in Somalia: An epidemiological assessment in rural communities during a pre-war period. 1998. Umeå University Medical Dissertations New Series No 557.
15. **Peña R**. Infant mortality in transitional Nicaragua. 1999. Umeå University Medical Dissertations New Series No 618.
16. **Mogren I**. Reproductive factors' impact on the health of mother and offspring - An epidemiological study. 1999. Umeå University Medical Dissertations New Series No 633.
17. **Zelaya E**. Adolescent pregnancies in Nicaragua. The importance of education. 1999. Umeå University Medical Dissertations New Series No 639.
18. **Ellsberg MC**. Candies in hell: Research and action on domestic violence against women in Nicaragua. 2000. Umeå University Medical Dissertations New Series No 670.
19. **Johansson E**. Emerging perspectives on tuberculosis and gender in Vietnam. 2000. Umeå University Medical Dissertations New Series No 675.
20. **Nyström L**. Assessment of population screening: the case of mammography. 2000. Umeå University Medical Dissertations New Series No 678.
21. **Berhane Y**. Women's health and reproductive outcome in rural Ethiopia. 2000. Umeå University Medical Dissertations New Series No 674.
22. **Andersson T**. Survival of mothers and their offspring in 19th century Sweden and contemporary rural Ethiopia. 2000. Umeå University Medical Dissertations New Series No 684.
23. **Edlund C**. Långtidssjukskrivna och deras medaktörer: en studie om sjukskrivning och rehabilitering. 2001. Umeå University Medical Dissertations New Series No 711.
24. **Kwesigabo G**. Trends in HIV infection in the Kagera region of Tanzania. 2001. Umeå University Medical Dissertations New Series No 710.
25. **Öhman A.** Profession on the move. Changing conditions and gendered development in physiotherapy. 2001. Umeå University Medical Dissertations New Series No 730.
26. **Ivarsson A.** On the multifactorial etiology of celiac disease. An epidemiological approach to the Swedish epidemic. 2001. Umeå University Medical Dissertations New Series No 739.
27. **Grönblom-Lundström L**. Rehabilitation in light of different theories of health. Outcome for patients with low-back complaints - a theoretical discussion. 2001. Umeå University Medical Dissertations New Series No 760.
28. **Nurdiati D**. Nutrition and reproductive health in Central Java, Indonesia. An epidemiological approach. 2001. Umeå Uni-

versity Medical Dissertations New Series No 757.

29. **Hyder SM Z.** Anemia and iron deficiency in women. Impact of iron supple-mentation during pregnancy in rural Bangladesh. 2002. Umeå University Medical Dissertations New Series No 783.
30. **Utarini A.** Evaluation of the user-provider interface in malaria control programme: The case of Jepara district, Central Java province, Indonesia. 2002. Umeå University Medical Dissertations New Series No 805.
31. **Ringbäck Weitoft G.** Lone parenting, socioeconomic conditions and severe ill-health. Longitudinal register-based studies. 2003. Umeå University Medical Dissertations New Series No 828.
32. **Chicovore J.** Gender power dynamics in sexual and reproductive health. A qualitative study in Chiredzi District, Zimbabwe. 2004. Umeå University Medical Dissertations New Series No 876.
33. **Sri Hartini Th N**. Food habits, dietary intake and nutritional status during economic crisis among pregnant women in Central Java Indonesia. 2004. Umeå University Medical Dissertations New Series No 885.
34. **Emmelin M.** Self-rated health in public health evaluation. 2004. Umeå University Medical Dissertations New Series No 884.
35. **Lind T.** Iron and zinc in infancy: Results from experimental trials in Sweden and Indonesia. 2004. Umeå University Medical Dissertations New Series No 887.
36. **Hang HM.** Epidemiology of unintentional injuries in rural Vietnam. 2004. Umeå University Medical Dissertations New Series No 914.
37. **Hassler S.** The health conditions in the Sami population of Sweden 1961-2002. 2005. Umeå University Medical Dissertations New Series No 962.
38. **Valladares Cardoza E.** Partner violence during pregnancy. Psychosocial factors and child outcomes in Nicaragua. 2005Umeå University Medical Dissertations New Series No 976.
39. **Nguyen TX**. The injury poverty trap in rural Vietnam: Causes, consequences and possible solutions. 2005. Umeå University Medical Dissertations New Series No 990.
40. **Oscarson N.** Health economic evaluation methods for decision-making in preventive dentistry. 2006. Umeå University Medical Dissertations New Series No 1004.
41. **Månsdotter A.** Health, economics and feminism. On judging fairness and reform. 2006. University Medical Dissertations New Series No 1013.
42. **Ng N.** Chronic disease risk factors in a transitional country. The case of rural Indonesia. 2006. Umeå University Medical Dissertations New Series No 1017.
43. **Minh HV**. Epidemiology of cardiovascular disease in rural Vietnam. 2006. Umeå University Medical Dissertations New Series No 1018.
44. **Edin K.** Perspectives on intimate partner violence, focusing on the period of pregnancy. 2006. Umeå University Medical Dissertations New Series No 1041.
45. **Dao Lan Huong.** Mortality in transitional Vietnam. 2006. Umeå University Medical Dissertations New Series No 1036.
46. **Nafziger A.** A population perspective on obesity prevention: lessons learned from Sweden and the U.S. 2006. Umeå University Medical Dissertations New Series No 1050.
47. **Kahn K**. Dying to make a fresh start: mortality and health transition in a new South Africa. 2006. Umeå University Medical Dissertations New Series No 1056.
48. **Norberg M.** Identifying risk of type 2 diabetes: epidemiologic perspectives from biomarkers to lifestyle. 2007. Umeå University Medical Dissertations New Series No 1077.
49. **Hagberg L.** Cost-effectiveness of the promotion of physical activity in health care. 2007. Umeå University Medical Dissertations New Series No 1085.
50. **Jerdén L.** Health-promoting health services: Personal health documents and empowerment.2007. Umeå University Medical Dissertations New Series No 1126.
51. **Tesfaye F**. Epidemiology of cardiovascular disease risk factors in Ethiopia: The rural-urban gradient. 2008. Umeå University Medical Dissertations New Series No 1151.
52. **Fantahun M.** Mortality and survival from childhood to old age in rural Ethiopia. 2008. Umeå University Medical Dissertations New Series No 1153.
53. **Fottrell E F**. Dying to count: Mortality surveillance methods in resource-poor settings. 2008. Umeå University Medical Dissertations New Series No 1152.

54. **Dahlblom K.** Home alone. Sibling caretakers in Léon, Nicaragua. 2008. Umeå University Medical Dissertations New Series No. 1210.
55. **Tollman S.** Closing the gap: Applying health and socio-demographic surveillance to complex health transitions in South and sub-Saharan Africa. 2008. Umeå University Medical Dissertations New Series No. 1226.
56. **Sorensen J.** Social marketing for injury prevention: Changing risk perceptions and safety-related behaviours among New York farmers. 2009. Umeå University Medical Dissertations New Series No. 1238.
57. **Emmelin A.** Counted – and then? Trends in child mortality within an Ethiopian demographic surveillance site**.** 2009. Umeå University Medical Dissertations New Series No. 1256.
58. **Nilsson M.** Promoting health in adolescents – preventing the use of tobacco. 2009. Umeå University Medical Dissertations New Series No. 1263.
59. **Collinson MA.** Striving against adversity. The dynamics of migration, health and poverty in rural South Africa. 2009. Umeå University Medical Dissertations New Series No. 1251.
60. **Sahlén K-G.** An ounce of prevention is worth a pound of cure. Preventive home visits among seniors. 2009. Umeå University Medical Dissertations New Series No. 1278.
61. **Kasenga F.** Making it happen. Prevention of mother to child transmission of HIV in rural Malawi. 2009. Umeå University Medical Dissertations New Series No. 1284.
62. **Goicolea I.** Adolescent pregnancies in the amazon basin of Ecuador – a rights and gender approach to girls' sexual and reproductive health. 2009. Umeå University Medical Dissertations New Series No. 1294.
63. **Kidanto HL.** Improving quality of perinatal care through clinical audit. A study from a tertiary hospital in Dar es Salaam, Tanzania. 2009. Umeå University Medical Dissertations New Series No. 1311.
64. **Nzefa Dapi L.** Socioeconomic and sex differences in adolescents' dietary intake, anthropometry and physical activity in Cameroon, Africa. 2010. Umeå University Medical Dissertations New Series No. 1327.
65. **Eriksson M.** Social capital, health and community action - implications for health promotion. 2010. Umeå University Medical Dissertations New Series No. 1355.
66. **Waldau S.** Creating organisational capacity for priority setting in health care. Using a bottom-up approach to implement a top-down policy decision. 2010. Umeå University Medical Dissertations New Series No. 1368.
67. **Wiklund M.** Close to the edge. Discursive, gendered and embodied stress in modern youth. 2010. Umeå University Medical Dissertations New Series No. 1377.
68. **Johansson H.** En mer hälsofrämjande hälso- och sjukvård. En studie med utgångspunkt från vårdens professioner. 2010. Umeå University Medical Dissertations New Series No. 1388.
69. **Probandari A.** Revisiting the choice. To involve hospitals in the partnership for tuberculosis control in Indonesia. 2010. Umeå University Medical Dissertations New Series No. 1383.
70. **Lundqvist G.** Tobaksvanor i medelåldern. Riskfaktormönster, rökstoppsattityder och erfarenheter av att sluta röka. 2011. Umeå University Medical Dissertations New Series No. 1344.
71. **Petersen Z.** Smoking cessation during pregnancy. A person-centred approach among disadvantaged women in South Africa. 2011. Umeå University Medical Dissertations New Series No. 1398.
72. **Maluka S.** Strengthening fairness, transparency and accountability in health care priority setting at district level in Tanzania. Opportunities, challenges and the way forward. 2011. Umeå University Medical Dissertations New Series No. 1407.
73. **Salazar M.** Intimate partner violence in Nicaragua. Studies on ending abuse, child growth, and contraception. 2011. Umeå University Medical Dissertations New Series No. 1411.
74. **Njozing B.** Bridging the gap. Implementing tuberculosis and HIV/AIDS collaborative activities in the Northwest Region of Cameroon. 2011. Umeå University Medical Dissertations New Series No. 1431
75. **Sörlin A.** Health and the elusive gender equality. Can the impact of gender equality on health be measured? 2011. Umeå University Medical Dissertations New Series No. 1420.
76. **Hoi L V.** Health for community dwelling older people: Trends, inequalities, needs

and care in rural Vietnam. 2011. Umeå University Medical Dissertations New Series No. 1437.

77. **Frumence G.** The role of social capital in HIV prevention: Experiences from the Kagera Region of Tanzania. 2011. Umeå University Medical Dissertations New Series No. 1453.
78. **Laisser R.** Prevention of intimate partner violence – Community and healthcare workers' perceptions in urban Tanzania. 2011. Umeå University Medical Dissertations New Series No. 1460.

Licentiate Theses 1994-2011

Abdulaziz Sharif Aden. Studies for health planning in rural Somalia:Community perceptions and epidemiological data. Licentiate thesis. Umeå University 1994.

Maymuna Muhiddin Omar. Women's health in rural Somalia. Licentiate thesis. Umeå University 1994.

Dinh Phoung Hoa. Social patterning of child health in Vietnam. Licentiate thesis. Umeå University 1996.

Hoang Thi Hoa. Family planning and reproductive pattern in rural Vietnam. A study during a period of rapid socio-economic transition. Licentiate thesis. Umeå University 1996.

Ngo Van Toan. Utilisation of reproductive health services in two rural areas in Vietnam. Licentiate thesis. Umeå University 1996.

Elmer Zelaya. Teenage sexuality and reproduction in Nicaragua: Gender and social differences. Licentiate thesis. Umeå University 1996.

Mary Ellsberg. Candies in hell: Domestic violence against women in Nicaragua. Licentiate thesis. Umeå University 1997.

Anna Fjelddahl. Evaluation of caries prevention.a four year longitudinal study in Swedish adolescents. Licentiate thesis. Umeå University 2001.

Kerstin Hultén. Diet and breast cancer.an epidemiological study on plasma biomarkers of dietary intake. Licentiate thesis. Umeå University 2001.

Th. Ninuk Sri Hartini. Dietary intake and nutritional status during economic crisis: the case of pregnant women in Central Java Indonesia. Licentiate thesis. Umeå University 2002.

Jeremiah Chikovore. Gender power dynamics in women´s reproductive health: A study of male perspectives in women´s reproductive health with special emphasis on abortion. Licentiate thesis. Umeå University 2002.

Nils Oscarson. Costs and cost-effectiveness of different caries-preventive measures in youth dental care in Sweden. Licentiate thesis. Umeå University 2003.

Master of Public Health Thesis (Public Health Report series) 2011

2011:1 **Therese Kardakis,** Linda Sundberg, Monica E. Nyström, Rickard Garvare, **Lars Weinehall**. Utveckling och implementering av kliniska riktlinjer för hälso- och sjukvården – En litteraturöversikt. Epidemiologi och global hälsa, Umeå universitet, 2011.

2011:2 **Rathi Ramji**. Assessing the Relationship between Occupational Stress and Periodontitis in Industrial Workers. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:3 **Waseem Akhtar Choudhary.** Barriers to voluntary counselling and testing (VCT) among HIV/AIDS patients. A Study Protocol for the Punjab Province of Pakistan. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:4 **Joseph S. Bukalasa.** Indoor Air Pollution, Social Inequality and Acute Respiratory Diseases in Children in Tanzania. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:5 **Shijun Wang.** Health systems in rural areas: A comparative analysis in financing mechanisms and payment structures between China and India. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:6 **Nguyen Thi Minh Thoa.** Health care utilization and economic growth of households in Ba Vi, Vietnam. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:7 **Nazgul Mussanova.** Efficiency Analysis of the Health Centres in Karaganda oblast, Kazakhstan. Data envelopment and Malmquist index analysis. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:8 **Medet Ospanov.** Cost effectiveness analysis of lifestyle intervention in primary health care. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:9 **Haleema Masud.** Health Policy: What does it mean in Pakistan? Policy Actors' Perspectives. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:10 **George Downward.** Diabetes among the Sami population of Sweden. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:11 **Fauhn C Minvielle.** Women's right to health in the Anglo-Caribbean. Intimate partner violence, abortion and the State. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:12 **Andrea Linander.** Explicit Health Care Priority Setting in Practice. -Clinical managers' views of performing vertical prioritization in Västerbotten County Council. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:13 **Petronella Sevelius.** Breastfeeding in rural Eritrea: a qualitative study of factors influencing women's decision to exclusive or non exclusive breastfeeding. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:14 **Yehualashet Tadesse.** Cervical cancer: Analysis of diagnostic and therapeutic facility in public health institutions in Addis Ababa, Ethiopia. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:15 **Muhammad Talha Khan.** Diabetes mellitus and sugar consumption; an ecological study. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:16 **Hina Khuram.** Effect of aerobic physical training on stroke survivors. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:17 **Batholomew Chireh.** Knowledge, attitude and practices (KAP) concerning Hepatitis B among adolescents in the upper West Region of Ghana. The rural-urban gradient. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:18 **Tom Nick Adie.** Cost-effectiveness of community-based HIV/AIDS Management program: Implications for Kenya. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:19 **Henrietta Opoku.** Self-reported vision health status among older people in the Kassena-Nankana District, Ghana. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:20 **Arnold Nyiegwen Muweh.** Modernity in traditional medicine. Women's experiences and perceptions in the Kumba health district, SW region Cameroon. Master thesis in public health. Umeå International

School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:21 **Nazib Uz Zaman Khan.** Husbands perceptions about their wives' long term maternal morbidity: findings from interviews in rural Bangladesh. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

2011:22 **Abraham Tsegay.** Knowledge, attitude and practice of public health practitioners towards safe abortion care services in Tigray regional state, Ethiopia. Master thesis in public health. Umeå International School of Public Health, Epidemiology Global Health, Department of Public Health and Clinical Medicine, Umeå University, 2011.

MFS-reports 2011

2011-65 **Josefine Beck-Friis and Anton Lundmark.** The first referral hospital: A Minor field study on the factors affecting the role of the first referral hospitals in Kampong Chhnang Provice, Cambodia.

2011-66 **Amina Esisse**. The use of toothbrush and chewing stick and the prevalence of caries among third graders in the Gambia.

2011-67 **Per Bengtsson and Robert Gad.** Understanding the impact of trimethoprim/ sulfamethoxazole prophylaxis on antimicrobial resistance in AIDS patients – a retrospective survey of all positive urine cultures in a newly opened hospital in Botswana.

.