Annual Report 2009

Umeå International School of Public Health

Epidemiology and Global Health

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Cover photo:Lena Mustonen

Preamble

This Annual Report represents a summary of another important activity year for our Division. It's been a year of heavy tasks but also a year with a continuing positive working atmosphere. During 2009 we changed our name to Epidemiology and Global Health to further emphasize our profile.

During 2009 we continued to develop the large long-term research grants we received in 2007, CGH (Center for Global Health Research), and in 2008, SIMSAM (Swedish Initiative for Research on Microdata in the social and Medical Sciences). We have consolidated CGH's research structure in the form of five themes, while SIMSAM is continuing to develop its model of research cooperation. Several of our researchers have been engaged in the research programme Ageing and Living Conditions (ALC) and have thus broadened the Division's research collaborations within the University. We have also had the pleasure of associating additional highly qualified international visiting scientists to our Division, which in turn reinforces our strong environment.

Research-wise, our researchers published a record number of scientific publications in 2009 and several new research grants were awarded. In 2009, eight Ph.D. students successfully defended their theses, while six new ones were accepted for doctoral studies. Our global profile is clearly illustrated by the fact that five of the eight 2009 theses focused on global health development issues.

2009 also saw a record number of students commencing their Masters education at Umeå International School of Public Health (UISPH), with no fewer than 58 first-year students turning up at the beginning of term. Thanks to the excellent efforts of teachers, students, counselors and administrators, it has been possible to provide a good educational programme for both the new students and for the 28 second-year students.

The Swedish Research School for Global Health - a partnership between Umeå University and Karolinska Institutet, where our Division is responsible for the Umeå part, worked well and provided a series of well-appreciated post-graduate courses.

It is obvious that operations such as Epidemiology and Global Health represents are highly dependent on good partnerships. We would therefore like to underline the good climate of cooperation that exists within the Department of Public Health and Clinical Medicine, and most especially with our Head of Department Professor Ellinor Ädelroth. We would also like to stress the importance of our wide-ranging cooperation with the County Council's Research, Development & Education team led by Professor Jack Lysholm.

2009 also meant that our staff members Anna-Lena Johansson and Jerzy Pilch retired. We are deeply grateful for the dedicated and valuable work they contributed during many years at our Division.

The Swedish Parliament has decided that Swedish Universities will introduce tuition fees for non-EU/EES-students, starting in autumn 2011. For our Division, many future students in our Masters programme will be affected by the new rules. What the implications in terms of student applications for UISPH might be is not yet possible to assess. But it is quite clear that the challenges we will be facing during the coming years will lead to consequences, at least during the transitional period.

This Annual Report summarizes in a concrete way our research and research training, our educational efforts and the important cooperations that have characterized Epidemiology and Global Health during 2009.

Lars Weinehall
Professor, Head of Division

Urban Janlert
Professor, Deputy Head of Division

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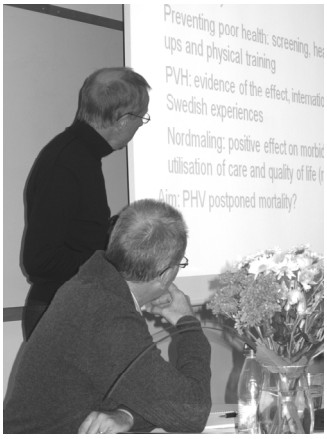

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Social Marketing for Injury Prevention
Changing risk perceptions and safety-related behaviors among New York farmers

Supervisors: Maria Emmelin, Lars Weinehall, John May
Thesis defended: 20 February, 2009
Opponent: Professor Peter Lundqvist, Department of Work Sciences, Swedish University of Agricultural Sciences, Alnarp, Sweden

In the U.S., work-related death is an all too familiar occurrence on farms. Tractor overturns continue to be the most frequent cause of these fatalities. Efforts to alter farming's ranking as one of the most deadly occupations in the country must provide proven strategies for the elimination of these preventable deaths.

In the past, efforts to decrease the rate of overturn fatalities and injuries have largely focused on increasing the proportion of tractors with a rollover protective structure (ROPS). These devices, in combination with seatbelts, are 99% effective in protecting the tractor operator from death or injury. Unfortunately, only 59% of U.S. tractors are currently equipped with ROPS. Due to the relative lack of political willpower to legislate ROPS installation and the less than encouraging response to education and awareness programs to date, it appeared necessary to explore alternative intervention strategies.

The over-arching purpose of this thesis project has been to assess the utility of social marketing as a framework for developing effective health and safety interventions in the farm community. However, our specific objectives included; a more thorough understanding of the perceived barriers and motivators that influence farmer's safety decisions, the design and evaluation of social marketing incentives developed to encourage safe behaviors and the evaluation of a social marketing campaign designed to positively impact farmer's intentions and readiness to retrofit unsafe tractors.

The research was by and large conducted in New York State and supported by grants from the National Institutes of Occupational Safety and Health (NIOSH). Previous research conducted in the New York farm community had indicated that small crop and livestock farmers would be an ideal intervention target for a social marketing tractor overturn intervention as their farms accounted for close to 85% of New York farms which lack or have only one ROPS protected tractor.

A qualitative assessment of perceived barriers and motivators regarding retrofitting behaviors was performed with representatives of the small crop and livestock community. Grounded theory analysis of these in-depth interviews revealed several key categories which include: 1) risk becomes "normal", 2) risk becomes part of a "farming identity", and 3) risk becomes "cost-effective". This information was used to design potential intervention incentives, such as toll-free assistance finding and purchasing ROPS, financial rebates, and campaign messages designed to address farmer's stated concerns. Subsequent research included testing and revising messages and evaluating the effect of the different campaign incentives in a prospective, quasi-randomized, controlled trial conducted in different regions of New York and Pennsylvania.

The results indicate that social marketing offers a promising framework for the development of injury or fatality prevention programs in farm communities. Farmers in the social marketing region demonstrated the most significant changes in both behavioral intention and readiness to retrofit compared to farmers from other regions. Data also indicated that social norms strongly influence farmer's decisions to work safely, as demonstrated by the strong correlations between behavioral intention measures and measures of social norms. As well as providing an assessment of the utility of social marketing as an intervention framework, the thesis provides a cogent example of how behavioral theories can be used in the design and evaluation of intervention programs. Both stages of change theory and the theory of planned behavior proved to be valuable for measuring dispositional and behavioral changes and for finetuning future interventions.

Anders Emmelin

Counted - and then? Trends in child mortality in an Ethiopian demographic surveillance

Thesis defended: 24 April, 2009
Supervisors: Stig Wall, Peter Byass
Opponent: Professor Tord Kjellström

Background

Knowledge of the state of health of a population is necessary for planning for health services for that population. It is a paradox that the health of populations is most commonly measured by mortality and cause of death patterns, but the absence of medical services available to a majority of the world population has made it unavoidable to equate "state of health" with "cause of death pattern".

In the absence of population registration, mortality and causes of death must be studied in samples from the population. The research presented in this thesis mainly has been done within such a sample in a collaborative project between Umeå university and the Addis Ababa university in Ethiopia. This research started 1986 and has run continuously since then. The thesis attempts to measure the effect that social and geographical inequalities has had on the mortality of the children in the study population.

Population and Methods

The population that is included in the demographic surveillance is the children under five years of age in nine rural and one urban community in central Ethiopia. Mortality and causes of death among the children have been followed since 1987.

Results

The mortality of the children in the study is high by international comparisons. The most important reason for mortality differences within the population is the difference in living conditions and societal services between the rural and urban areas. Approximately 45% of the child deaths could have been prevented if living conditions and services had been equal to rural and urban children.

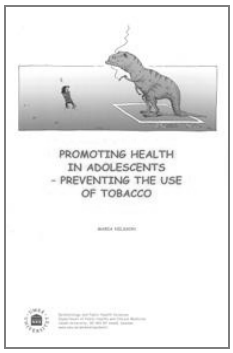
Conclusions

Information concerning mortality and cause of death patterns are essential to planning. In order to empower the population, knowledge of the mortality and most common causes of death must be known to them.

Maria Nilsson

Promoting health in aolescents - preventing the use of tobacco

Thesis defended: May, 2009
Supervisors: Urban Janlert, Lars Weinehall, Erik Bergström, Hans Stenlund
Opponent: Professor Charli Eriksson



There is a robust evidence base for the negative health effects from smoking. Smoking is linked to severe morbidity and to mortality, and kills up to half of its regular users. Tobacco use and production also bring other negative consequences such as economic loss for countries, poverty for individuals, child labour, deforestation and other environmental problems in tobacco growing countries.

A combination of comprehensive interventions at different levels is needed to curb the tobacco epidemic. Tobacco control strategies at national levels in the western world often include components of information/education, taxation, legislative measures and influencing public opinion. Two approaches have dominated at the meso and micro levels: cessation support for tobacco users and prevention activities to support young people refraining from tobacco use. Smoking uptake is a complex process that includes factors at the societal level as well as social and individual characteristics. At national level, taxation and legislation can contribute to a societal norm opposing tobacco and creating a context for primary prevention aimed at tobacco free youth. There is no magic bullet in primary prevention. At the meso and micro levels, a continued development of knowledge on the underlying mechanisms and primary prevention methods is essential to prevent young people from starting to use tobacco.

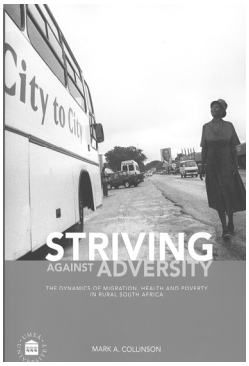
The overall aim of this thesis was to gain knowledge about factors that influence young people's use of tobacco and of preventive mechanisms. The specific aims included to study the relation between Tobacco Free Duo, an intervention program targeting youth in Västerbotten County, and tobacco use prevalence. A specific interest was to explore the role adults can play in supporting young people to refrain from tobacco use.

The thesis is based on four studies with three separate sets of data, two were quantitative and one was qualitative. The studies were conducted among adolescents (aged 13-15 yr) in Västerbotten County and on national level in Sweden (aged 13, 15 and 17 yr).

Tobacco Free Duo is a school-based community intervention that started in 1993. An essential component of the intervention was to involve adults in supporting adolescents to stay tobacco free. Results showed decreased smoking in adolescents among both boys and girls in the intervention area during the study period of seven years. There was no change in a national reference group during the same time period. A bonus effect was a decrease in adult tobacco use in the intervention area. One out of four adults who supported a young person taking part in the intervention stopped using tobacco. In a qualitative assessment of young smokers, starting to smoke was described as a means of gaining control of their feelings and their situation during early adolescence. They expected adults to intervene against their smoking and claimed that close relations with caring adults could be a reason for smoking less or trying to quit smoking. In a quantitative study that used three decades of national data, over time adolescents became more positive toward parental action on children's smoking. The adolescents strongly supported the idea of parental action, regardless of whether or not they themselves smoked. Adolescents preferred that actions from parents were dissuading their children from smoking, not smoking themselves, and not allowing their children to smoke at home.

These results suggest that the Tobacco Free Duo program contributed to a reduction in adolescent smoking among both boys and girls. Using a multi-faceted intervention that includes an adolescent-adult partnership can decrease adolescent smoking uptake. Engaging adults as partners in tobacco prevention interventions that target adolescents has an important tobacco reducing bonus effect in the adults. The intervention has proven sustainable within communities. A growing majority of adolescents support parental interventions to help them refrain from tobacco. The findings dismiss the notion that adolescents ignore or even disdain parental practices concerning tobacco. A common and consequent norm against tobacco from both schools and parents using a supportive attitude can prevent tobacco use in young people.

Mark Collinson



Striving against adversity. The dynamics of migration, health and poverty in rural South Africa

Thesis defended: 15 May, 2009
Supervisors:
Opponent: Professor Peter Kim Streatfield, Dhaka, Bangladesh

Background: The study is based in post-apartheid South Africa and looks at the health and well being of households in the rural northeast. Temporary migration remains important in South Africa because it functions as a mainstay for income and even survival of rural communities. The economic base of rural South Africans is surprisingly low because there is high inequity at a national level, within and between racial groups. There has now been a democratic system in place for 15 years and there is no longer restriction of mobility, but there remain high levels of poverty in rural areas and rising mortality rates. Migration patterns did not change after apartheid in the manner expected. We need to examine consequences of migration and learn how to offset negative impacts with targeted policies.

Aims: To determine a relevant typology of migration in a typical rural sending community, namely the Agincourt sub-district of Mpumalanga, South Africa, and relate it to the urban transition at a national level – Paper (I) . To evaluate the dynamics of socio-economic status in this rural community and examine the relationship with migration – Paper (II). To explore, using longitudinal methods, the impact of migration on key dimensions of health, including adult and child mortality, and sexual partnerships, over a period of an emerging HIV/AIDS epidemic – Papers (III), (IV) and (V).

Methods: The health and socio-demographic surveillance system (HDSS) is a large open cohort where the migration dynamics are monitored as they unfold. They are recorded as temporary or permanent migration. Settled refugees are captured using nationality on entry into the HDSS. Longitudinal methods, namely a household panel and two discrete time event history analyses, are used to examine consequences of migration.

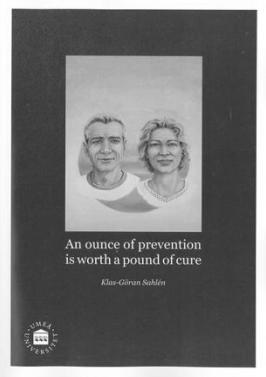
Results: Migration features prominently and different types have different age and sex profiles. Temporary migration impacts the most on socio-economic status (SES) and health, but permanent migration and the settlement of former refugees are also important. Remittances from migrants make a significant difference to SES. For the poorest households the key factors improving SES are government grants and female temporary migration, while for less poor it is male temporary migration and local employment. Migration has been associated with HIV. Migrants that return more frequently may be less exposed to outside partners and therefore less implicated in the HIV epidemic. There are links between migration and mortality including a higher risk of dying for returnee migrants compared to permanent residents. A mother's migration can impact on child survival after accounting for other factors. There remains a higher mortality risk for children of Mozambican former refugee parents.

Interpretation: Migration changes the risks and resources for health with positive and negative implications. Measures such as improved transportation and roads should be seen as a positive, not a negative intervention, even though it will create more migration. Health services need to adapt to a reality of high levels of circular migration ranging from budget allocation to referral systems. Data should be enhanced at a national level by accounting for temporary migration in national censuses and surveys. At individual level we can offset negative consequences by treating migrants as persons striving against adversity, instead of unwelcome visitors in our better-off communities.

Klas-Göran Sahlén

An ounce of prevention is worth a pound of cure

Thesis defended: 18 September, 2009
Supervisors: Lars Lindholm
Opponent: Docent Carsten Hendriksen, Köpenhamn, Danmark



The aim of this thesis is to contribute to existing knowledge. If the knowledge is not useful in building society it has limited value. In order to be a tool for decision-makers, Preventive Home Visits (PHVs) are described and discussed according to a realist synthesis approach. The premise of this approach is that a single trial cannot tell the whole story and that understanding theoutcome pattern is much more important than seeking regularities in results across different trials. In order to understand the o utcome pattern, the PHV strategy in Nordmaling is examined against other trials and scientific work, and also in grey literature such as reports and workingpapers.

An increasing population of seniors means that resources for health and elderly care are being scrutinised in order to achieve the best possible health for the money invested. PHVs represent one strategy that attempts to promote health among independent seniors. This thesis is a multidisciplinary study aiming to gain knowledge about the effects of PHVs and to understand the mechanisms of importance when implementing this particular strategy. The point of departure is a study conducted in Nordmaling in the north of Sweden among healthy seniors aged 75 years and over.

The study, conducted as a controlled trial during 2000 and 2001, showed a decrease in mortality as well as the utilisation of care, and an improvement in indicators of perceived health. Cost analyses showed significant savings for the municipality following a reduction in the use of home help. These and other savings combined with costs of the intervention were related to saved life years and used to conduct health economic analyses. Medical and social records from the primary health centre and the municipality, along with official registers provided information for modelling health economic analyses from a lifetime perspective. Results showed that the costs of PHVs were less than 10 000 Euros per gained life year, against an acceptable level of cost effectiveness of 50 000 Euros. Using a shorter time perspective, the result was even more favourable for PHVs. It was evident that the time window used in the analyses, the normative choice of including future healthcare costs or not, and how to handle the value of the seniors' production were important factors in determining the results.

Two years after the trial, in-depth interviews were conducted with 5 seniors who had experienced PHVs, in order to gain understanding of the outcome of the PHV trial in Nordmaling.

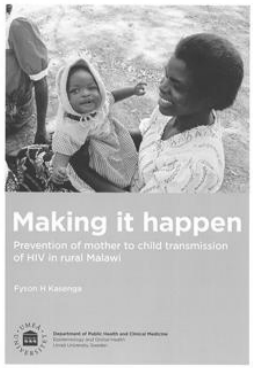
Participants were selected with respect to their health and how they responded to advice given during the PHV trial. Grounded Theory was used to analyse the interviews. Seniors who used autonomous coping strategies in everyday life gained less from PHVs than other seniors. All participants could benefit from PHVs, but in order for these to be successful it was important for the home visitor to be professional and to understand how the different coping strategies of seniors worked.

Taken together, the different aspects of this study raised normative questions that are discussed in this thesis. One, whether the production of seniors has any monetary value in health economic analyses conducted from a societal perspective, was addressed in a smaller diary study where 23 seniors were asked to keep a diary in order to identify everything they did over a oneweek period. It was evident that most of the respondents "produced" a lot, however the production of seniors is rarely taken into account in health economic analyses. The concept of "senior production" includes both the market value of what seniors do, as well as the value of what society can avoid doing if the seniors are independent and healthy.

Fyson Kasenga

Making it happen: Prevention of mother to child transmission of HIV in rural Malawi

Thesis defended: 23 October, 2009
Supervisor: Anna-Karin Hurtig, Maria Emmelin, Peter Byass
Opponent: Professor Thorkild Tylleskär, University of Bergen, Norway



The devastating consequences of HIV/AIDS have caused untold harm and human suffering globally. Over 33 million people worldwide are estimated to be living with HIV and AIDS and a majority of these are in sub-Saharan Africa. Women and children are more infected particularly in sub-Saharan countries. Globally, an estimated number of 370 000 children were newly infected in 2007, mainly through mother to child transmission (MTCT). Implementation of prevention of mother to child transmission (PMTCT) programmes has been introduced in many sub-Saharan countries during the last years.

Operational research was conducted to study the demand and adherence of key components within a PMTCT Programme among women in rural Malawi. This study was carried out at Malamulo SDA Hospital in rural Malawi and employed a mixture of both quantitative and qualitative approaches. Data sources included antenatal care (ANC), PMTCT and delivery registers, structured questionnaires, in-depth interviews with HIV positive women in the programme and focus group discussions with community members, health care workers and traditional birth attendants.

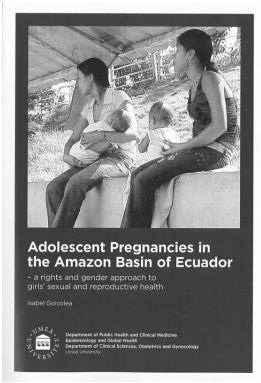
Over the three year period of the study (January 2005 to December 2007), three interventions were introduced in the antenatal care (ANC) at the hospital at different times. These were HIV testing integrated in the ANC clinic in March 2005, opt-out testing in January 2006 and free maternal services in October 2006. A steady increase of the service uptake as interventions were being introduced was observed over time. HIV testing was generally accepted by the community and women within the programme. However, positive HIV tests among pregnant women were also experienced to cause conflicts and fear within the family. Although hospital deliveries were recognised to be safe and clean, home deliveries were common. Lack of transport, spouse support and negative attitudes among staff were some of the underlying factors.

Further study on the quality of care offered in the presence of increased service uptake is required. Community sensitisation on free maternal care and male involvement should be strengthened to enable full utilisation of services. Additionally, service providers at facility and community levels, policy makers at all levels and the communities should see themselves as co-workers in development to reduce preventable maternal and infant mortality including MTCT of HIV.

Isabel Goicolea

Adolescent Pregnancies in the Amazon of Ecuador - a rights and gender approach to girls´ sexual and reproductive health

Thesis defended: 20 November, 2009
Supervisors: Marianne Wulff, Miguel San Sebastian, Ann Öhman
Opponent: Professor Johanne Sundy, Oslo University, Oslo, Norway



Adolescent pregnancy has been associated with adverse health and social outcomes, but it has also been favorably viewed as a pathway to adulthood. In Ecuador, where 20% of girls aged between 15-19 years get pregnant, the adolescent fertility rate has increased and inequalities between adolescent girls from different educational, socio-economic levels and geographical regions are prominent: 43% of illiterate adolescents become pregnant compared to 11% with secondary education. The highest adolescent fertility rates are found in the Amazon Basin.

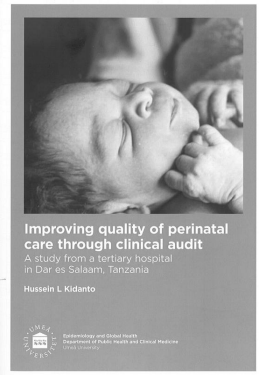
The overall aim of this study was to explore adolescent pregnancy in the Amazon Basin of Ecuador (Orellana province) from a rights and gender approach. Specific aims and methodologies included: to explore women‟s reproductive health situation, focusing on government‟s obligations, utilization of services, inequities and implementation challenges, assessed through a community-based cross-sectional survey and a policy analysis (Paper I); to examine risk factors associated with adolescent pregnancy, through a case-control study (Paper II); to explore experiences and emotions around pregnancy and motherhood among adolescent girls, using content analysis (Paper III); and to analyze providers‟ and policy makers‟ discourses on adolescent pregnancies (Paper IV).

Reproductive health status findings for women in Orellana indicated a reality more dismal than that depicted in official national health data and policies. Inequities existed within the province, with rural indigenous women having reduced access to reproductive health services. In Orellana, 37.4% of girls aged 15-19 had experienced pregnancy, almost double the national average. Risk factors associated with adolescent pregnancy at the *behavioral level* included early sexual debut and non-use of contraception, and at the *structural level* poverty, having suffered from sexual abuse, and family disruption. Gender inequity played a key role through the machismo-marianismo system. Girls were raised to be fearful and ignorant regarding sexuality and reproduction, to be submissive and obedient, to be fatalistic, and to accept the established order of the male and adult dominance. Sexuality was conceptualized as negative, while motherhood was idealized. Those gender structures constrained girls‟ agency, making them less able to make choices regarding their sexual and reproductive lives. Providers‟ discourses and practices were also strongly influenced by gender structures. Adolescent sexuality was not sanctioned, girls‟ access to contraceptives still faced opposition, adolescent autonomy was regarded as dangerous, and pregnancy and reproductive health issues were conceptualized as girls‟ responsibility. However, mechanisms of resistance and challenge were also found both among adolescent girls and providers.

Programs addressing adolescent pregnancies in the area need to look at the general situation of women‟s reproductive health and address the gaps regarding access and accountability. Adolescent pregnancy prevention programs should acknowledge the key role of structural factors and put emphasis on gender issues. Gender inequity affects many of the factors that influence adolescent pregnancies; sexual abuse, girls‟ limited access to use contraceptives, and girls‟ curtailed capability to decide regarding marriage or sexual intercourse, are strongly linked with young women‟s subordination. By challenging negative attitudes towards adolescents‟ sexuality, the encounter between providers and adolescents could become an opportunity for strengthening girls‟ reproductive and sexual agency.

Hussein Kidanto
Improving quality of perinatal care through clinical audit

Thesis defended: 4 December, 2009
Supervisors: Lennarth Nyström, Siriel Massawe, Gunilla Lindmark
Opponent: Professor Geir Jacobsen, Norwegian University of Science and Technology, Trondheim, Norway



Perinatal audit has been tested and proved an important tool for reduction of perinatal mortality and assessment of quality of perinatal care. At Muhimbili National Hospital (MNH), a tertiary hospital in Dar es salaam, Tanzania we performed a retrospective cross-sectional study using data from an obstetrics database to classify all perinatal deaths during 1999-2003. We also determined the prevalence of anaemia in pregnancy and its impact on perinatal outcome. Furthermore, we conducted a perinatal audit to study potential determinants and causes of perinatal and neonatal deaths and their avoidability. We also assessed the quality of care of patients admitted with eclampsia using a criteria based audit.

Stillbirth, early neonatal and perinatal mortality rates (PMR) were 96, 27 and 124 respectively. A large proportion of foetuses (38%) had no audible foetal heart beat on admission at MNH labour ward and the majority of the neonatal deaths were asphyxiated at delivery. The PMR for multiples and singletons were 269 and 118 respectively resulting in a rate ratio of 2.4 (95%CI: 2.1-2.4).

The prevalence of anaemia and severe anaemia was 68% and 5.8%, respectively. Severity of anaemia increased the risk of preterm delivery with ORs of 1.4, 1.4 and 4.1 for women with mild, moderate and severe anaemia as compared to women with normal haemoglobin levels. The corresponding risks for LBW and VLBW were 1.2, 1.7 and 3.8, and 1.5, 1.9 and 4.2 respectively. The prevalence of preterm delivery and LBW was 17% and 14% respectively.

The hospital-based incidence of eclampsia was 504 per 10,000 women or 5.1 % of all mothers admitted. Suboptimal care were identified on criteria regarding management plan by senior staff, review of the plans by specialist obstetrician, delay on caesarean section, monitoring patients on magnesium sulphate and inadequate use of the laboratory. Two out of three patients requiring operation were not operated within set standards.

Birth asphyxia was the main cause of intrapartum fresh stillbirth (47%) and early neonatal deaths (51%), whereas eclampsia (25%) and preeclampsia (8.3%) were main maternal medical conditions. The majority of stillbirths were fresh, indicating foetal demise during labour or just before delivery.

The audit study identified suboptimal care in about 80% of audited cases out of which about 50% were found to be the likely cause of the adverse perinatal outcome. Inadequate maternal and foetal monitoring during labour were the main suboptimal factors, though delay in referral and operative interventions were also prominent.

Based on these studies, we conclude that:

- The perinatal mortality (PMR) in this study was higher than the national average.
- About one in four perinatal deaths at MNH can be attributed to avoidable factors linked to obstetric care
- Main causes of perinatal and neonatal deaths were intrapartum birth asphyxia, immaturity related and infections Management of patients in labour needs to be improved
- Suboptimal care that is essentially avoidable included: inadequate monitoring of patients during labour, delay of care, e.g. long decision to surgery interval, and delayed referral of patients from primary hospitals
- The prevalence of anaemia in pregnancy was very high; and low birth weight and preterm delivery was independently associated with severity of anaemia
- The prevalence of eclampsia at MNH was high and the case management needs to be improved

Scholarships 2009/2010

The 2009-2010 Centre Party Global Health scholarships for MPH students at UISPH

Girmay Asgedom, Ethiopia
Hanna Tadesse, Ethiopia
Yehualashet Tadesse, Ethiopia
Joseph Stephen Bukalasa, Tanzania
Marwan Mosleh, Palestine

The 2009 Centre Party Global Health Research scholarships for PHD students at UISPH

Hendrew Gekawaku Lusey, Congo
Hassen Mohammad Nuru, Ethiopia
Barnabas Njozing Nwarbébé, Cameroon
Stephen Maluka, Tanzania
Alireza Khatami, Iran
Cynthia Anticona, Peru
Ana Lorena Ruano, Guatemala
Setareh Forouzan, Iran
Chaya Utamie Puji Lestari, Indonesia
Ailiana Santosa, Indonesia
Zainonisa Petersen, South Africa

1. Institutional setting

Organisation

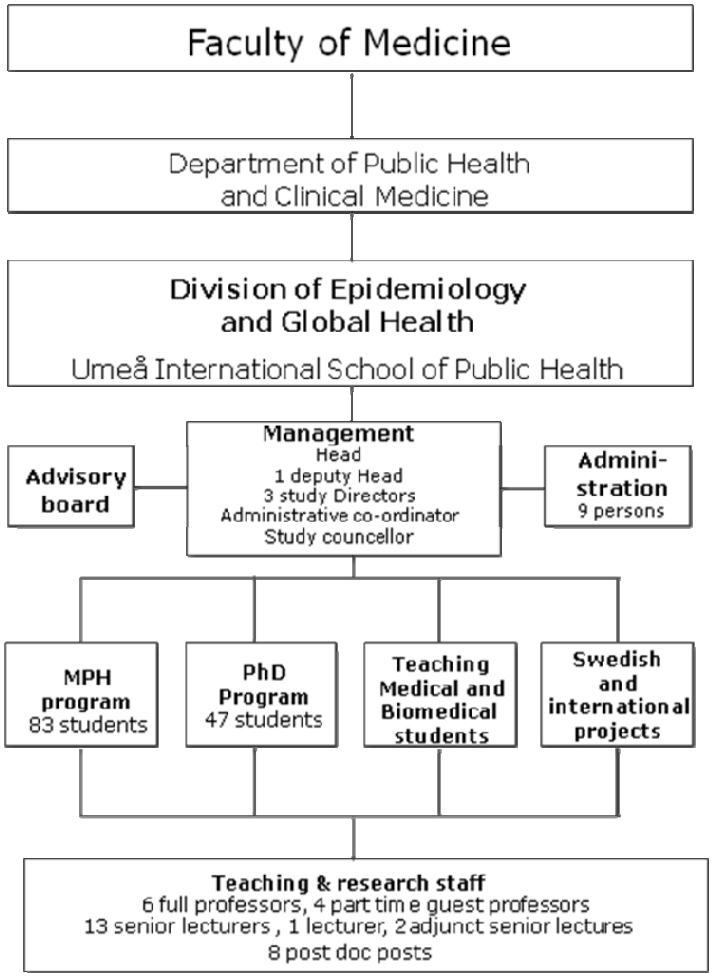


Figure 1. Organisational chart of division within department and faculty

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 69 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, 43 are women (62%). Of the 10 professors none is female. Of 18 Swedish PhD students currently registered, 12 are women and among 29 international PhD students, 13 are women. Seven out of 9 administrators are women.

Of the 63 students who have completed their PhD during 1987-2009, 28 were women. Thirty-one of these were Swedes, 16 of which were women.

The sex distribution among all the staff members is illustrated in Figure 2 below, showing a female/male ratio of 62:38 with women in majority. However, it is a sex imbalance in certain groups, with a minority of women among professors and teachers/researchers whereas it is quite the contrary among administrators where most employees are women.

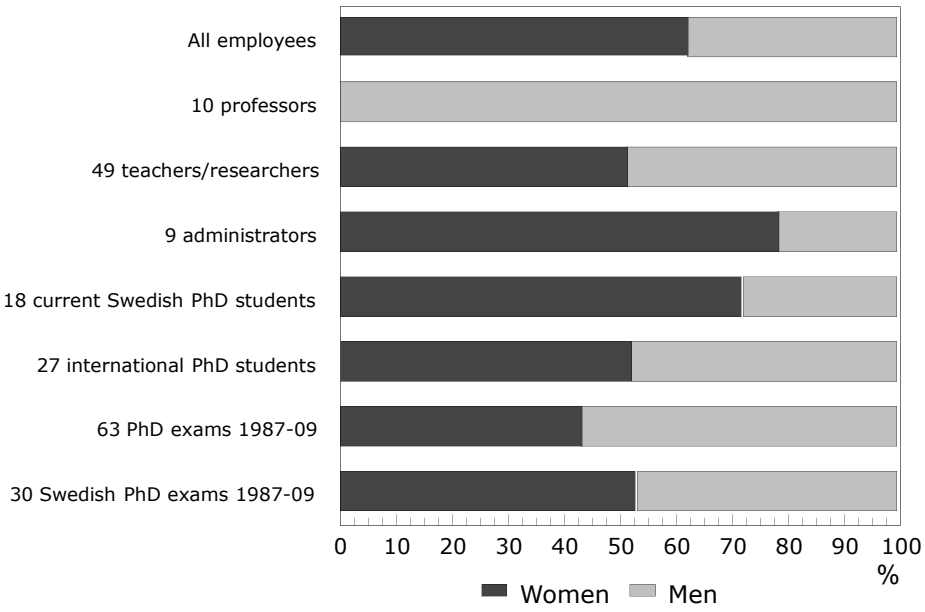


Figure 2. The sex distribution among all 69 staff members employed at or associated with our academic environment by subcategory in 2009.

In all, 47 doctoral students are registered (2009) 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. In terms of person-months of work at the division we have reached a "steady state" corresponding to about 45 full-time staff; 17%, 35% and 48% accounted for by administrative, predoc and post-doc staff respectively (Figure 3).

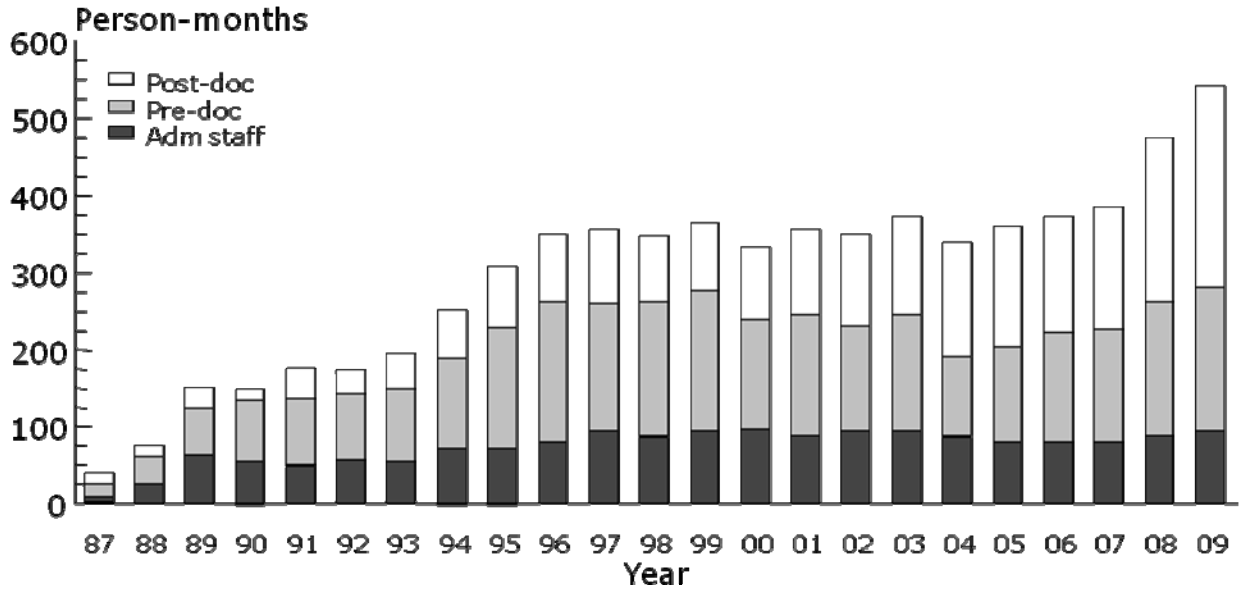


Figure 3. Development of person-months at work by staff category 1987-2009.

Budget

The total budget (Figure 4) for the year 2009 amounted to SEK 42.7 million, 68 % of which consisted of external Swedish research grants or grants for bilateral development research projects (Figure 5).

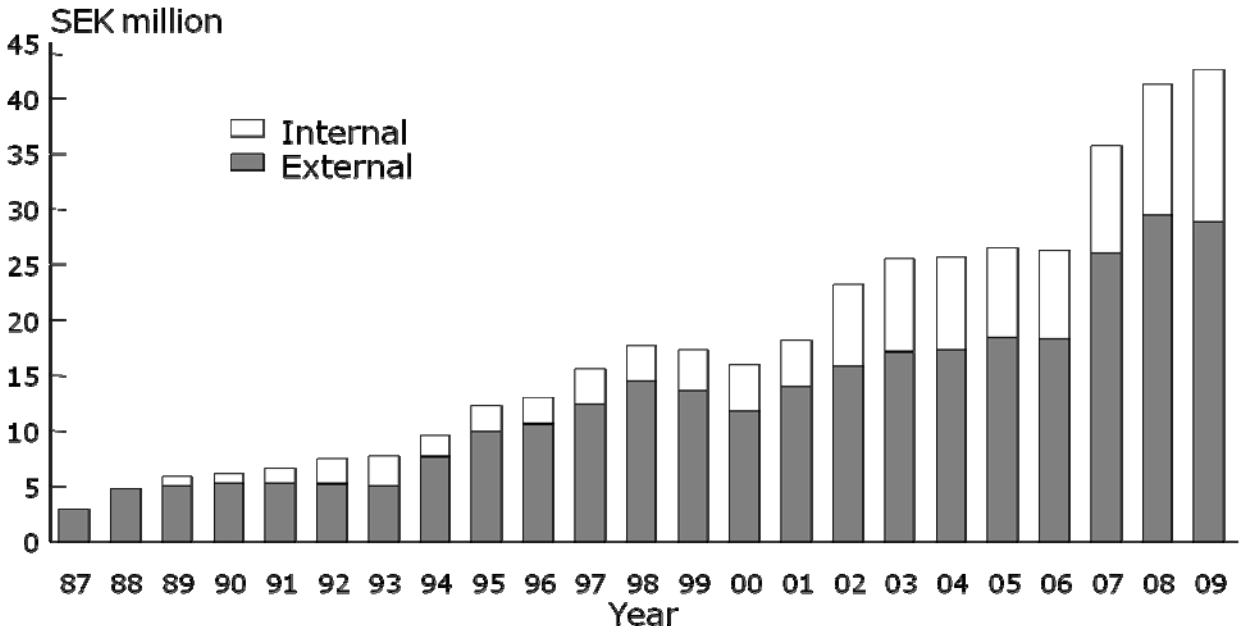


Figure 4. Development of total budget 1987-2009.

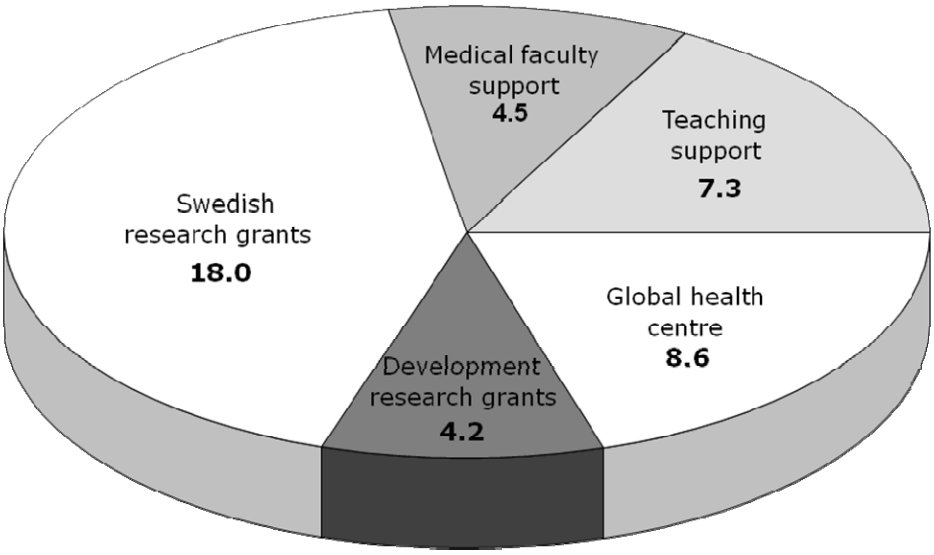


Figure 5. Financial sources for the fiscal year 2009 (in SEK millions).

During the past 10 years, we have seen an increase in core support from the faculty from the 1.5 million SEK in 1994 to the present 4.5 million. The teaching support, and the associated responsibilities, have increased from 0.6 to the present 7.3 million SEK during the same time period. The latter is mainly a consequence of the expansion of the public health teaching to the complete international MPH programme and our increasing involvement in the medical undergraduate programme. The balance between Swedish and development research is presented in Figure 5. We receive long-term programme support from the FHI, National Public Health Institute and FAS, the Swedish Council for Working Life and Social Research. Other funds are supplied through project grants from Sida/SAREC, FAS, AFA, Vinnvård, EU and the Vårdal Foundation. The project grants are further specified in Table 1.

Teaching support from the university has been granted for our Public Health programme. 11 PdD students and 5 MPH students were 2009 awarded scholarships from the Swedish Centre Party donation.

The output side of the budget is shown in Figure 6 by type of expenditure.

Progress

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

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

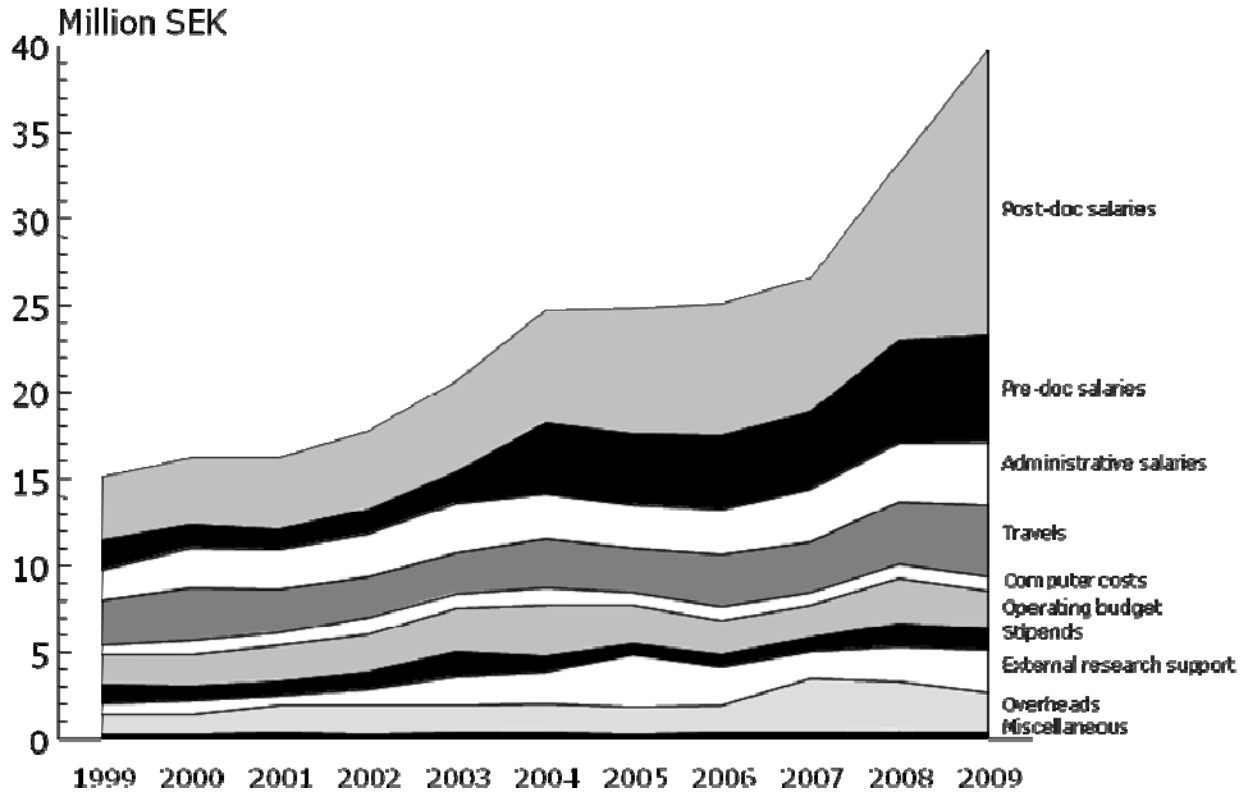


Figure 6. Budget development 1999-2009.

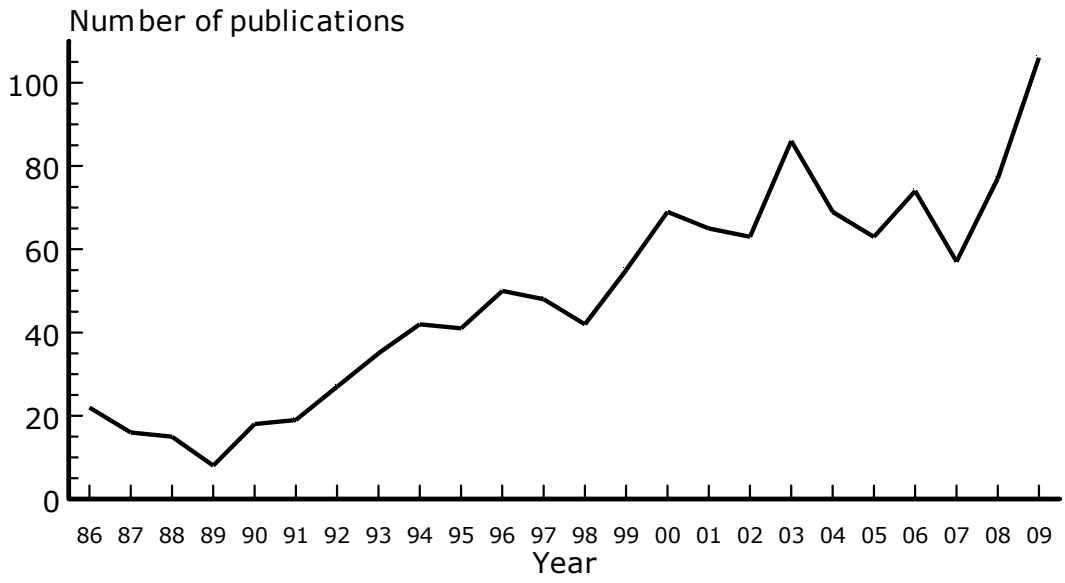


Figure 7. International publications in peer reviewed journals from our unit 1986-2009.

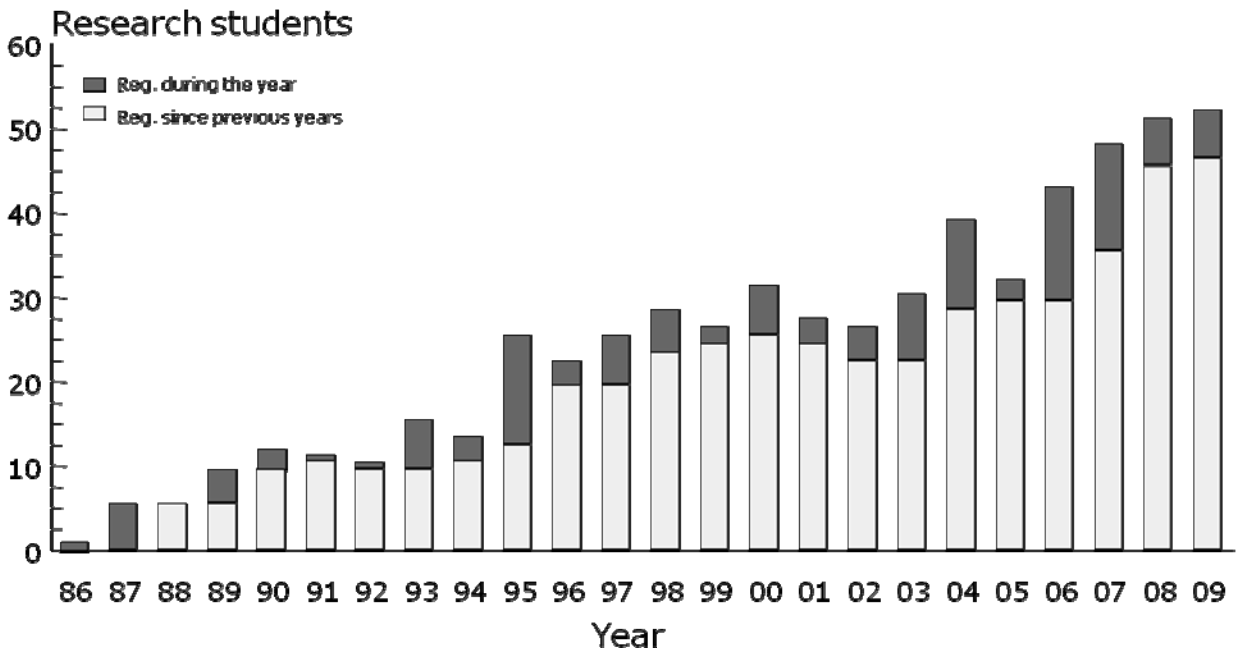


Figure 8. Research students at the division 1986-2009.

Figure 8 shows the number of research students over time, one of the parameters for the budget model assessment system. During 2009, 53 PhD students were associated with our department, 6 of which were registered during the year. A total of SEK 30 million is thus channelled to the departments as a bonus; we acquire 6.6 percent of this, ranking us number 2 of the 58 divisions of the medical faculty.Figure 9 shows the number of doctoral dissertations over the 23 years that we have existed as an independent research environment.

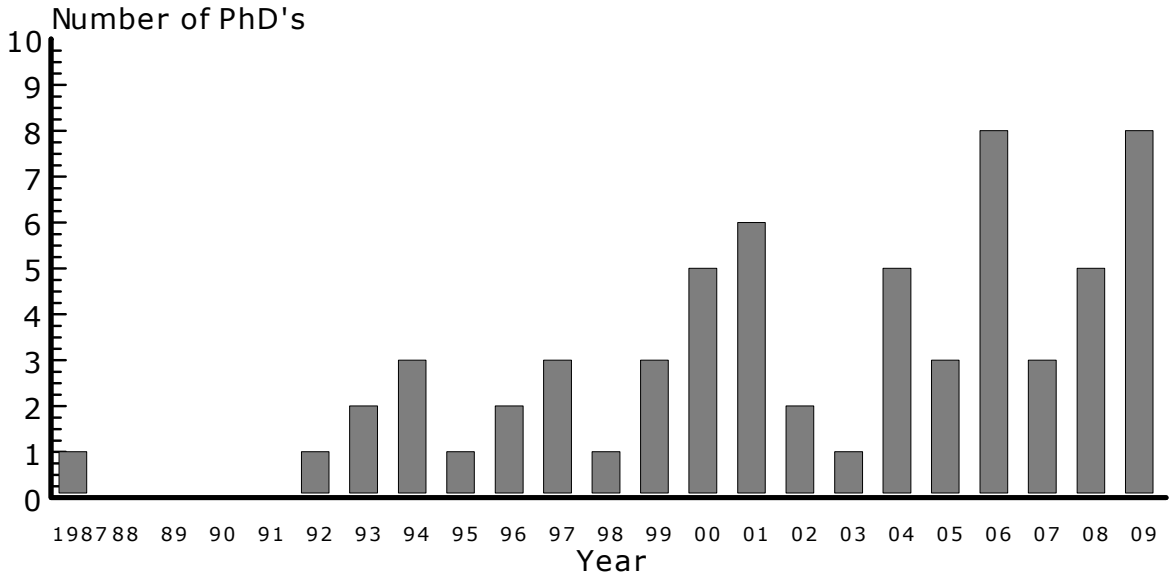


Figure 9. Doctoral dissertations 1987-2009.

Table 1. Project grants for 2009.

Funding/Source	Title of project/programme	SEK
The Swedish Council for Working Life and Social Research	FAS-Centre for Global Health Research	5 500 000
	Primär viktstabilitet: en ny hälsofrämjande vinkling i arbetet mot övervikt o fetma	1 000 000
	Is powerlessness a risk factor for poorer health among girls?	650 000
FORMAS	Celiac disease: Has time come for primary prevention?	250 000
VR	Celiac disease. Has time come for primary prevention	500 000
	Can the benefit of treatment for high blood pressure achieved in randomized studies also be achieved in clinical praxis?	600 000
	National Research School in Global Health	2 300 000
	Microdata research on childhood for lifelong health and welfare	2 880 000
	How gender equality in parenting affects the health and welfare among mothers, fathers and children.	450 000
Sida/SAREC	Too many caesarean deliveries challenge Safe Motherhood?- Nicaragua- Högberg	400 000
	Reproductive and child health – Nicaragua	245 460
	TANSWED HIV programme in Tanzania	210 300
	Health Systems research, Vietnam	500 000
	Reproductive health in Tanzania	308 450
	Research and research training in Laos	83 025
	Health research and training towards poverty reduction in Tanzania	139 830
EU	PreventCD	571 890
	REACT	109 386
Swedish Centre Party	Support for research co-operation between Epidemiology and Global Health and research departments in low and middle income countries	1 000 000
The Vårdal foundation	Is mass screening for celiac disease a wise use of resources?	200 000
Vinnvård	Towards sustainable organizational learning and innovation in health service	1 300 000
	National guidelines for a more health promoting health service – The challenge to move from evidence to clinical applications	2 000 000
Västerbotten County Council	Senior lecturer in health economics	183 600
	Senior lecturer in epidemiology	806 000
	Senior lecturer in health care	432 000
	A more health promoting health service (PhD stipends)	1 278 000
	Västerbotten Intervention program – database management	294 000
National Public Health Institute	Co-operation between National Public Health Institute and Epidemiology and Global Health	1 593 820
Miscellaneous		5 879 955
TOTAL		**31 665 716**

Table 2. Post graduate and research training support and stipends for 2009/2010.

Funding source	**Title of programme**	**SEK**
Medical faculty	Master of Public Health Programme: Advanced methods in epidemiology Advanced topics in health economic evaluation methods Biostatistics, part 2 Biostatistics, part 1 Chronic disease epidemiology Epidemiology, part 1 Epidemiology, part 2 Evaluation in public health (Global Health - An introduction Global Health - Policy and practice Health care management Health economic evaluation methods Health systems: Organization and financing Public health informatics Qualitative methodology for public health, part 1 Qualitative methodology for public health, part 2 Social epidemiology Social pathways in global health and health promotion Social and gender inequalities in global health Master thesis	3 463 000
	Basic support	150 000
	International summer course in Epidemiology and field research methods	136 000
	Research methodology, 5 points and Advanced biostatistics, 5 points	240 000
	Biomedicinsk grundutbildning, 5 poäng (in Swedish)	185 000
	Medical school	1 747 000
Sida	Minor Field Studies (MFS)	229 000
Global Health Research School		1 150 000
County council	Scholarships for PhD studies	120 000
Total		**7 270 000**

Special events during 2009

Centre of Global Health day

Staff meeting at Uminova

Study visit to Cyprus October 2009

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 in 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 coordinator. Responsible for departmental and staff administration. Faculty officer for the Master of Public Health programme.

Joanna Adcock. Part-time communications officer for the Centre for Global Health. Also attached to the Overseas Development Institute, London.

Sabina Bergstén. MSc. Programme Administrator of the Master of Science in Public Health Programme, Umeå International School of Public Health. Student support and scholarship issues. International contact person for the De-

partment of Public Health and Clinical Medicine.

Lena Björklund Olofsson. BSc. Research interests in young people's well-being. Evaluating the MPH programme at the International School of Public Health. Mapping academic Global Health Centres working with chronic diseases.

Yulia Blomstedt. Post-doctoral fellow within the multidiscipline programme "Ageing and Living Conditions" engaged in research on health in ageing population of Sweden. Specific interest: research on self-reported health; healthcare management. Together with Heidelberg University, Germany and Nouna Health Research Center, Burkina Faso is working on development of instrument for early identification of risk-factors for CVD in Burkina Faso.

Håkan Brodin. PhD in health economics. Adjunct lecturer. Also affiliated to the Swedish Institute of Public Health.

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 and many of its population surveillance site members. He is Deputy Editor of Global Health Action and also holds an honorary Professorship at the University of Aberdeen, Scotland.

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. Thesis project on sibling caretakers in León, Nicaragua. Research fields of interest: children's rights, children's participation in research, qualitative methods.

Léonie Dapi Nzefa. MPH, PhD. Thesis on adolescents' nutritional status in Cameroon, co-supervisor of medical students going to Cameroon.

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.

Anders Emmelin. PhD, Lecturer, epidemiology. Research on child mortality and climate, Child health and air pollution. Epidemiology teacher and director of the Master of Public Health Programme.

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

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

Eva Eurenius. PhD, project assistant within Salut child health intervention programme, Västerbotten County Council. Studies within Salut focus on the pregnant woman's and her partner's health and life habits with follow-ups of the infants' 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.

Alison Hernandez. Doctoral student.

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.

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

Elisabet Höög. MA in work- and organizational psychology. Assistant in an interdisciplinary research group working with two Vinnvård projects with focus on sustainable organizational development..

Anneli Ivarsson. MD, PhD in Paediatrics, Associate Professor in Epidemiology and Public Health Sciences. Deputy Director of the Centre for Global Health Research, and 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.

Anna-Lena Johansson. Administrative coordinator. Responsible for departmental and staff administration and budgeting. Coordinating financial reports within the department. Also involved in the collaborative studies in Vietnam (retired from 2010).

Helene Johansson. Physio-therapist. Doctoral studies on A health promoting health 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 Witwatersrand, South Africa.

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.

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, strategies 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.

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 Västerbotten Intervention Program (VIP), The Sweden Stroke Prevention Study (SSPS), and Ageing and Living Conditions (ALC).

Lena Mustonen. Course administrator within the public health programme. Responsible for the web site of the division, UISPH newsletter and Annual Report. Administrates the childhood diabetes register and also some parts within the Umeå SIMSAM Node. Responsible for the publication database (DIVA) and courses and programs database (Selma) and also the staff catalogue information.

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

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. Senior lecturer in Epidemiology. Investigator in the study on adult health and ageing, 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 programme Ageing and Living Conditions. Member of Centre for Global Health Research steering group, theme leader in the "Epidemiological Transition" research at the centre and editorial board of Global Health Action since 2008.

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 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 Uni-

versity. 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. Associate 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.

Per Olofsson. Economic coordinator. Responsible for economic planning, budgeting and accounting. Coordination of financial reports within the department.

Jerzy Pilch. Project administrative assistant. Involved in project on diabetes epidemiology. Responsible for computer network and maintenance at the department. (retired from 2010).

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.

Anna Rosén. MD, PhD student, Minor Field Study handling officer. Doctoral studies on "The complexity of screening-detected celiac disease" utilizing a combination of qualitative, epidemiological and genetic research methods. Also attached to the department of Medical and Clinical genetics.

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.

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

Barbro Skog. Course administrator within the undergraduate medicine programme.

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

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

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

Maria Wiklund. Physiotherapist. Doctoral studies on psychosomatic and stress related problems in adolescents, and health promotion models within youth and school health – gender perspectives. Also attached to the Department of Physiotherapy.

Pekka Virtanen. Guest professor in epidemiology and public health.

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. Associate 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 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 mal-distribution and social inequity in health. In Sweden, distributional policy issues within the health care sector are increasingly being addressed. The recognition of the key role of community participation for public health promotion is a lesson learnt from 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. 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.

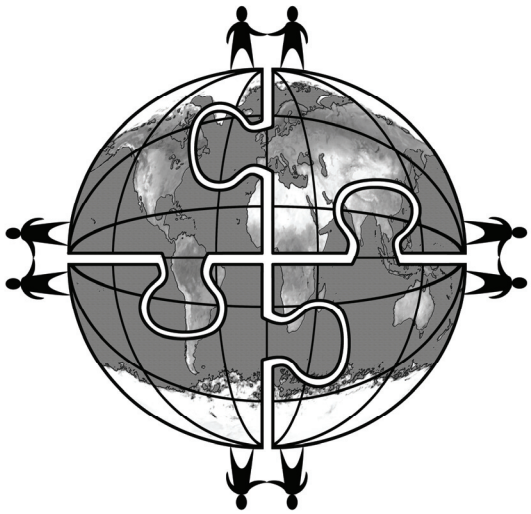
Thinking in previous decades tended to group epidemiological issues as local (to a particular institution) or international (meaning a setting quite different from the institution). Gradually this polarised way of thinking has become more integrated, leading to the relatively new paradigm of "global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

Umeå Centre for Global Health Research – working together globally to meet health challenges

A substantial and long-term grant from FAS, the Swedish Council for Working Life and Social Research, in 2007 has enabled us to establish the Umeå Centre for Global Health Research (UCGHR) as a Centre of Excellence within Umeå University, also supported by co-funding from the University. This provides a tangible way of advancing a substantial research agenda in global health, integrating many of our previous local and international research interests.

The Centre's overall mission is to engage with and address a global agenda on health research and practice, and facilitate collaboration between and within the North and South. For convenience, our work is arranged into five themes, each of which are further detailed below. More information on UCGHR can be found at www.globalhealthresearch.net



Theme I: Epidemiological Transitions

Demographic transition theory describes the changes from high fertility and high mortality in "traditional" societies to low fertility and low mortality in "modern" societies consequent on economic development. In 1971 Abdel Omran developed a theory of epidemiologic transition which broadened the scope of mortality transition to include changing morbidity patterns and the interaction of these with their socio-economic determinants and consequences. He proposed three stages through which societies move sequentially based on the differences in mortality levels, life expectancy, and patterns of underlying morbidity.

Omran's epidemiological transition model has undoubtedly contributed to global public health thinking, locating changes in population health within societal changes, acknowledging the value of public health activities, and stimulating much debate. Omran's theoretical construct, however, has been questioned for its assumptions that economic development is stage-wise rather than a continuous and dynamic process. The validity of Omran's model has also been accused of failing to recognise and analyse the importance of political processes and health policy in understanding the epidemiological profile. The transition model has also been criticised for failing to differentiate between transitions in population subgroups undergoing different rates of social change due to inequalities.

Understanding epidemiological transition processes is very important in advancing our knowledge of health problems, issues and concerns that transcend national boundaries. Under new leadership in 2009, Theme I within the Umeå Centre for Global Health Research outlined explicit plans to challenge the current understanding of epidemiological transitions. Through projects focussing on the development and application of innovative methodologies and the measurement, prediction and evaluation of population health changes, this research seeks to enrich the capacity for an empirical evidence base for epidemiological transitions theories. This will be achieved through collaborations with global partners, particularly the INDEPTH network of Health and Demographic Surveillance Sites (HDSS) in Africa and Asia. The ultimate goal of Theme 1 is to develop a revised theory of transitions based on population evidence from low-, middle- and high-income countries.

Methods in transition

This project seeks to advance the development, application and evaluation of evidence-based common methodologies and standardised approaches in population health measurement in low and middle-income settings. It facilitates interchanges between countries and over time and contributes to the theoretical modelling of modern phases of the epidemiological transition.

Specifically, this project will:

(i) Assess the design effects of longitudinal surveillance and survey methodologies on the data quality and utility of health and demographic data;
(ii) Apply and assess the use of new technology and climate and environmental data for population health measurements;
(iii) Develop and evaluate methods for assessing the burden and causes of morbidity, mortality and functionality from community-based surveys;
(iv) Use current HDSS data and Swedish historical data to apply, evaluate and refine mortality models relating cause distributions to other population health parameters such as mortality level, socioeconomics and fertility.

Contact: Ed Fottrell
edward.fottrell@epiph.umu.se

Understanding transitions

One limitation of Omran's transition theory is that it lacks evidence based on data from low- and middle-income settings. Availability of demographic and health data from low- and middle income countries in recent years has allowed researchers to have a more empirical understanding of the dynamics of demographic, health and epidemiological transitions in such settings. The wealthy longitudinal INDEPTH database from Africa and Asia, as well as extensive longitudinal population data from high-income countries such as Sweden, will facilitate a more complete picture of epidemiological transitions globally.

Specifically, this project will:

(i) Describe and interpret the levels and trends of fertility and cause-specific mortality in 20th century Sweden and current day low- and middle-income settings in relation to existing transition theories;
(ii) Harmonize data and describe the patterns of non-communicable disease risk factors, functionality and well-being in adult populations globally over time;
(iii) Analyze cause-specific mortality in relation to NCD risk factors, functionality and well-being in population cohorts;
(iv) Explore community perceptions of demographic transitions, risk factors, illness and death in low- and middle-income countries;
(v) Study 20th century health policies in Sweden as driving forces and/or consequences of health transitions, and identify similarities with current day health policies in low- and middle-income countries in response to changing health patterns.

Contact: Nawi Ng
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Theme II: Life-course perspectives 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. Results to date illustrate the potential of the life-course approach for building evidence on associations between lifestyle and other risk factors at early ages and health outcomes in later life. This approach also enables us to study the contribution of different social, cultural and environmental factors to health and disease. The theme has developed a methodological interest in how to best design, implement and evaluate complex interventions taking into account the specific complexity of community and population based interventions as well as the complexity of the context in which these interventions are implemented. Short descriptions of various intervention studies carried out under the umbrella of Theme II are listed in Table 1. Further information is given on some of them below.

We take advantage of the Child-Health Intervention Programme in Västerbotten (Salut), targeting parents-to-be and children 0-18 years of age. Salut is a cross sector and multidisciplinary child health intervention programme developed to support the provision of health promotion activities in health care, social services and school settings. It builds on experience from the Västerbotten Intervention Programme (VIP) for adults and the Tobacco Free Duo Programme for adolescents. Following initial studies in South Africa and Tanzania, we now also contribute to the development of the PROMISE project in Agincourt, South Africa. It is a randomized intervention to promote adolescent and infant health and wellbeing, and to reduce intergenerational risk of metabolic disease in transitioning societies.

Within VIP we have now completed 20 consecutive annual examinations of most Västerbotten inhabitants aged 40, 50 and 60 years.VIP now holds data on over 120,000 examinations. Work is ongoing to provide trend analyses of major risk factors and to identify different patterns across sex and age groups, and we are piloting an extension of the study to include 70-year-olds. Modified VIP community intervention models are being implemented in Indonesia and Vietnam and will inform new programmes in South Africa; weight maintenance programmes in Sweden and the US are being compared; and diabetes studies are being extended to involve Palestinian communities. We plan to use our datasets to identify key determinants of a healthy life-course, studying implementation strategies to scale-up from local projects to full-scale implementation, and developing evaluation models that take the life-course perspective into account.

Coeliac disease (CD), also called permanent gluten-sensitive enteropathy, has emerged as a global health problem affecting all ages. We currently host the only prospective incidence child CD register with nationwide coverage. Sweden has experienced a unique epidemic of CD explained partly by changes over time in infant feeding. Within a CD screening study (<www.etics.se>) 12 year-olds (n=18,000) from birth cohorts that differ with respect to infant feeding are approached. A randomised field trial on infant feeding for prevention of CD in high-risk newborns is also ongoing within a European collaboration (www.preventcd.com). Prevalence estimates are available globally, with the exception of Sub-Sahara Africa and South-East Asia, where we now are exploring possibilities for collaboration around screening studies

We study issues of sustainability in organizational learning, improvement, development, innovation and implementation in research projects funded by the Vinnvård Programme (www.vinnvard.se) within health and social care institutions. The research groups are multi disciplinary, with members also from Karolinska Institutet and Luleå University. One of the projects follows the implementation process of a development and learning strategy in specialized medical care and within the Salut Programme, both in Västerbotten County Council. Another

project follows the full innovation process - from creation to implementation - of developing National Guidelines on how the health service can improve lifestyle changes among patients, including issues on how to facilitate the learning and implementation processes on core organizational level. The potential impact of the research is a better knowledge on how to make innovation, implementation and organizational learning reachable and sustainable for every unique context.

These plans will be developed and carried out in synergy with the other CGH themes and with the Umeå SIMSAM Node and its research programme "A register-based research programme connecting childhood with lifelong health and welfare (www.simsam.org.umu.se).

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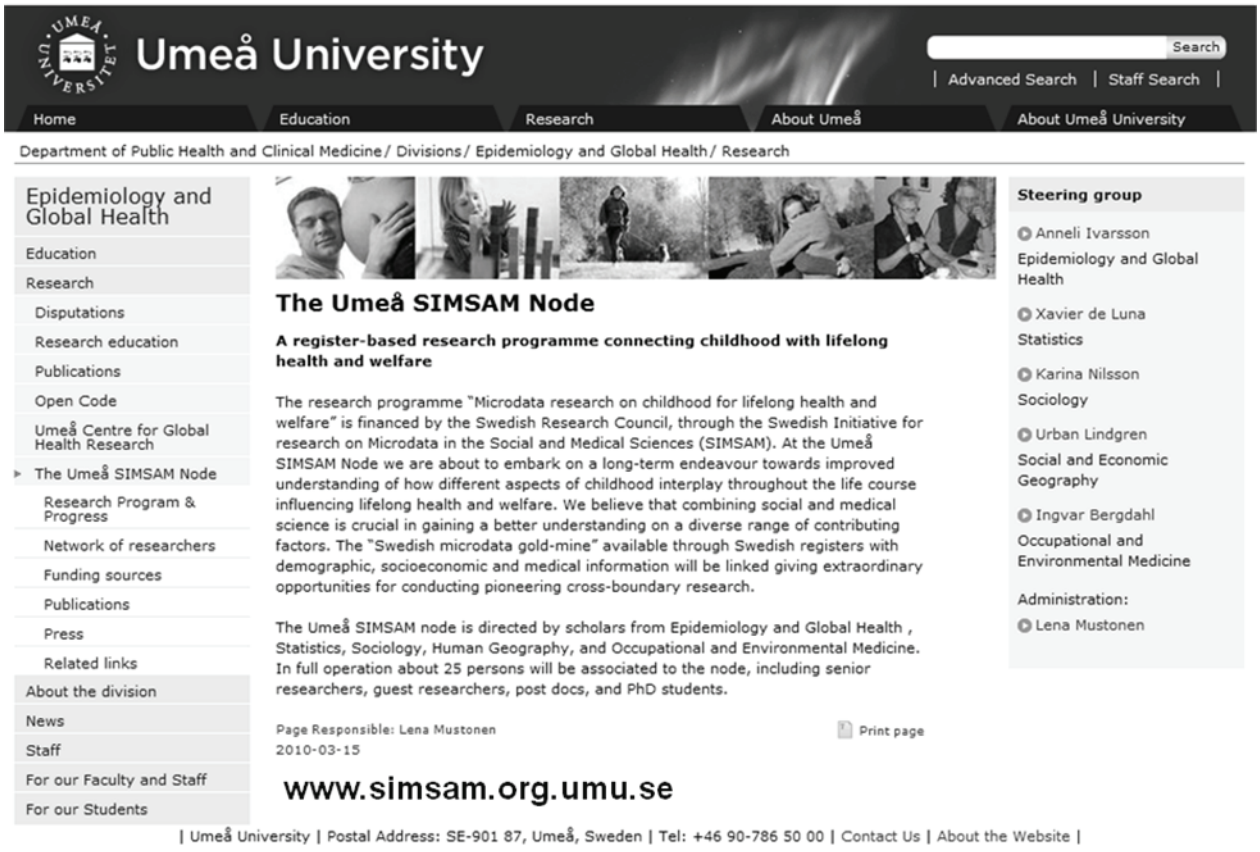

Table 1. Short description of various interventions carried out under the umbrella of Theme II.

Västerbotten Intervention Programme (VIP): An intervention programme for the prevention of CVD and diabetes, targeted at all persons aged 40-60 residing in Västerbotten. VIP has been running for 25 years and combines population and high-risk individual approaches. It consists of brief medical examination, questionnaire and a motivational interview.	Sweden, Västerbotten
The PRORIVA study: Mobilizing a disadvantaged community for a cardiovascular community based intervention.	Indonesia, Yogyakarta
The Child Health Intervention Programme in Västerbotten (Salut): A case study in progress from intervention development, to pilot area implementation and thereafter dissemination, and country-wide implementation.	Sweden, Västerbotten
Perinatal audit: Follow up of perinatal deaths at MUHAS to classify different forms of delays (community, infrastructure and health care). Workshops to discuss the cases and suggest actions to be taken have been held and the situation will be followed up in 2010	Sweden, Dar es Salaam
Prenatal supplementation of pregnant women in Purworejo district, rural Java: 2173 pregnant women were supplemented with vitamin A, zinc, vitamin A + zinc or placebo. Out of 1956 live births 343 were followed up to two years of age.	Indonesia, Java, Purworejo district
The Norrbotten Breast Cancer Screening Project (NBCSP): Breast cancer screening with mammography of women 40-74 years in the county of Norrbotten	Sweden, Norrbotten
The Jordan Breast Cancer Program: Educational campaign with in total 105 public group lectures to improve breast health knowledge among Jordanian women. The total number of participants was 2554 women with a median age of 37 years. Median number of women per lecture was 24.	Jordan
Identification and care of intimate partner violence (IPV) clients in the health care setting: Training and advocacy intervention for healthcare workers at an Urban District Hospital in Dar es Salaam	Tanzania, Dar es Salaam
From efficacy to effectiveness: Can the benefits from treatment of hypertension from the randomised controlled trials be achieved in clinical practice? A longitudinal study comparing the population in the counties of Västerbotten and Sörmland regarding hypertension	Sweden, Västerbotten and Sörmland
Development of non-laboratory instruments for early identification of risk for cardio-vascular diseases in developing countries: A project that aims at developing and integrating such instruments in daily health care practice in low income countries	Burkina Faso, Nouna
PROMISE: Primary prevention to promote adolescent and infant health and wellbeing and to reduce intergenerational risk of metabolic disease in transitioning societies	Sweden, US, UK and South Africa
Stress management groups in School Health and Youth Health: an intervention targeted at school children aged 16-18 and youth 16-25 year old.	Sweden, Västerbotten
The ETICS study - Exploring the Iceberg of Coeliacs in Sweden: Three different interventions are taking place: 1) National changes in infant feeding and the effects are followe by our "National Register for Coeliac Disease in Children" 2) Mass screening of coeliac disease in children from two birth cohorts exposed to different infant feeding; 3) A prospective randomized study evaluating different modes of support to newly diagnosed CD cases	Sweden
With my hands: A randomised control trial of cultural therapy of stress with consequent follow-up and evaluation	Sweden
Smoking cessation among disadvantaged pregnant women in South Africa: Qualitative and quantitative evaluation of an intervention programme based on health communication and motivational interviewing	South Africa, Cape Town
Involving men in prevention of men's violence against women: Evaluation of a training programme for male activists	Yogyakarta, Indonesia
The Vinnvård I Study: Towards Sustained Organizational Learning and Innovation in Healthcare.	Sweden, Västerbotten
The Vinnvård II Study: National Guidelines for a more health promoting health service - The challenge to move from evidence to clinical applications	Sweden, Västerbotten

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 (see figure X) focusing on the functions of health systems as articulated by WHO.

Research highlights

Governance

Social participation - Decentralization – Priority setting

One of the key elements of primary health care is social participation. However, different stakeholders understand it in very different ways. Ideally, participating in the health system should promote change, equity and local-level policy-making.

Guatemala signed the Alma-Ata declaration and committed itself to using social participation as a means to attain sustainable social development for its population in the 1996 peace agreements. To guarantee this, there is a legal framework in place, and a countrywide, bottom-up social participation structure. However, we still don't know what role this participation structure plays in the health system, if it is effective and if it contributes to pro-equity policy making. An ongoing study 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.

During the 1990s, Tanzania like many other developing countries adopted health sector reforms. The most common policy change under health sector reforms has been decentralization, which involves the transfer of power and authority from the central levels to the local governments. However, despite the indisputable national rhetoric, practice in the district involved little community participation. Our research suggests that decentralization, in whatever form, does not automatically provide space for community engagement. The conventional assumption that when power and authority are devolved to the local governments, then the community would demand transparency, accountability and involvement by themselves is far from reality (Maluka et al, in press). Moving on from there ongoing action research study aims 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. The study pays special attention to changes in perceived trust, fairness and legitimacy in health care prioritization process (Byskov et al, 2009).

Priority settings within the Swedish health care is a hot topic, in Västerbotten the construction and testing of a model for explicit priority setting has been carried out. The model was used in a full-format process embracing the whole county council organisation. The specific aim of the procedure was to reallocate 3% of the county council budget towards mainly new, cost-effective medical methods of high priority by reducing treatments and activities with low priority. The model combined vertical, department-based priority setting with horizontal, trans-departmental priority setting and finally a political decision.

Financing

Evaluating reforms

User fees at public health care facilities and out-of-pocket payments for health care services are major health financing problems in Vietnam. To facilitate the poor to access to public health services and reduce their health care expenditure (HCE), since 2002 the Government has launched the health care funds for the poor (HCFP) which offered the poor free public health care services. This research is an assessment

of the implementation of the HCFP in a rural district of Vietnam. The impacts of HCFP on household HCE as a percentage of total expenditure and health care utilization were assessed by a double-difference propensity score matching method using panel data of 10,711 households in 2001, 2003, 2005 and 2007. The results showed that the HCFP significantly reduced the HCE as a percentage of total expenditure, increased the use of the local public health care and decreased the use of private health care among the poor. However, the impacts of HCFP on the use of the higher levels of public health care and the use of go-to-pharmacies were not significant. In conclusion, this assessment indicates that the HCFP has met it's objectives by reducing HCE for the poor and increasing their use of the local public health care services. However, further efforts are needed to facilitate them to access to the higher levels of public health care. Pharmacists/drug sellers should be better regulated and co-operated with the primary health care to improve the efficiency of the system.

The federal government of Ethiopia endorsed the introduction of health care financing reform in 1998, recognizing the crisis in the health sector and the ever increasing gap between the demands for health care and the resources availed in the sector. The stated objectives of the reform were "*Generation of extra resources for public sector, increase efficiency in resources utilization, so as by promoting sustainable financing strategies achieve better health service quality, equity and utilization.*

Addis Ababa city administration passed its own HCF regulation in September 2008 and then embarked on its implementation since January 2009 by pertaining to the federal strategies. The regulation calls for introduction of three new fee policies. One is user fee retention and utilization by facilities, the 2nd is revision of existing waiver and exemption systems and the 3rd is revision of user fees.

In order to protect the poor from the effects of user fees and promote community's access to health intervention with public health importance the regulation also calls for standardization of both waiver and exemption policies.

This reform will be evaluated in a PhD-study with the aim to investigate the implications of the reformed user fees, exemption and waiver systems on public health expenditure, on service quality and utilization rendered at Addis Ababa public hospitals and health centers.

Human Resources

Filling the gaps

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 in rural areas. Mid-level health workers have a shorter training duration than health professionals, usually 1 to 2 years, and they have a more restricted scope of practice so their production can be scaled up more easily and they are less amenable to migration loss. Shorter training and lower entry education level helps facilitate recruiting locals from rural communities who can provide more culturally and linguistically appropriate care with greater acceptance from the community. Increasing deployment of mid-level health workers can also be appealing as a lower cost alternative for improving coverage. However limited evidence is available regarding the factors influencing their performance in low resource settings and operational mechanisms of interventions to strengthen service delivery.

In Guatemala, the health system utilizes mid-level health workers primarily in the form of auxiliary nurses. The majority of auxiliary nurses work in hospitals, performing direct patient care and other related tasks under the supervision of professional nurses. Auxiliary nurses are also utilized as front-line health workers providing primary care in rural communities. By including auxiliary nurses who have worked with programs to strengthen their performance, ongoing research will provide insight into the effects and implementation of diverse mechanisms to support their practice.

Since 2004, the government of Ethiopia has made a bold decision to strengthen and expand its PHC system by launching the Health Extension Program (HEP). The HEP is designed to achieve significant basic health care coverage in the country over five years through the provision of a staffed health post to serve every 5 000 people. The aim of this new community-based health care delivery system is to improve access and equity in health care through a focus on sustained preventive health actions and increased health awareness. Every health post is staffed by two females Health Extension Workers (HEWs), who are high school graduated with an extra of one year training course. All components of HEP are preventive except malaria which includes in addition the case management treatment. By May 2008, there were 24,500 HEWs trained and deployed which is 82% of the 30,000 target of the Ministry of Health in 2010/11. In collaboration with the Ministry of Health in Tigray research ins conducted with a focus on malaria diagnosis and treatment as well as on the efficiency of the health extension workers (Lemma et al, 2009)

Service Delivery

Scale up – Integrate – Prevent

Service delivery has to meet the challenges both of "old" conditions such as infectious diseases but also of "new" phenomena like the growing number of elderly people in an increasingly pluralistic health system.

In Europe the delivery of primary care is undergoing structural changes within the different health systems. An initiative to compare country specific health organizations emerged from our collaboration with French and Spanish researchers resulting in the PRimary health Care In Europe (PRICE) project. The aim of PRICE is to explore primary care organizations and structures in the different locations under study using prenatal/postnatal health care as a first area of comparison. Comparing practices can bring an understanding of how these practices actually are functioning in various settings. Given the unique organization of primary care in France, now under revision, and the current changes in provision of care in Sweden, the opportunity to study the implications of these changes for the care givers and users needs to be recognized.

Interventions to fight HIV and TB have been developed and during the last years the focus has been how to scale up and integrate those into routine activities.

A doctoral thesis defended during 2009 explored barriers and promoting factors to the delivery of the Prevention of Mother to Child Transmission of HIV in rural Malawi. Special attention was given to the implications of home deliveries to the programme and how to avert their negative consequences (Kasenga et al 2009a, 2009 b, Kasenga et al, 2010, Kasenga 2009).

Directly Observed Therapy Short course (DOTS) has since the mid 90s been advocated as the recommended strategy to treat and prevent TB. In many Asian countries the progress of scale up has been slowed down because of a huge proportion of patients seeking care in the private sector. An ongoing project looks at the potential to link both private and public hospitals to the national DOTS programme for increased case detection and case holding.

WHO recommends collaborative TB/HIV activities and the policy goal is to decrease the burden of TB and HIV in populations affected by both diseases. Providing anti-retroviral therapy to HIV infected TB patients is now a WHO 'standard of care' policy and managers of several DOTS programmes have adopted this. Through strengthening the links between HIV and TB programmes and general health services, HIV testing serves as the entry point for prevention and treatment of HIV/AIDS, and as a key to a more coherent response to TB in high HIV-prevalence settings. A study from the Northwest Province in Cameroon shows a high HIV testing rate among TB patients, however there are still gaps in the access to HAART and other drugs for those tested positives. Interviews with TB patients reveal an increasing "normalization" of HIV in this setting although stigma persists. Further studies will focus on barriers to access of services in this setting.

All over the world the number of elderly people is increasing. The fact that this

development is worldwide makes preventive actions among elderly even more important. Shall we treat illness when it occurs or try to prevent illness from occurring is a well-known rhetoric question. A doctoral thesis defended 2009 shows that preventive home visits to elderly in Västerbotten have positive effects on health, and might even reduce mortality and be cost-effective (Sahlén, 2009). The research has given the result that preventive home visits now is one part of the government's strategy for elderly care. In Västerbotten most of the municipalities and primary health care centers are involved with preventive home visits. This research highlight an all-embracing question: Is it worth working with prevention in older age? The question is relevant, not only in a Swedish setting, but also in developing countries. In Vietnam, with a rapid economic development, a major urbanisation has started. This affects the family structure and the importance of how society is organised to take care of an increasing number of elderly in the rural areas. The most vulnerable group in this transition is the elderly, simultaneously having the greatest needs for health care and social welfare but the lowest incomes. The main demographic process is a trend towards increasing the number of the elderly, while the technical treatment opportunities grow as a part of a global health care trend and thus peoples' health expectations grow. At the same time, traditional systems for care giving and informal insurance seem to break down. Within the FilaBavi DSS an on going project aiming to describe the health situation for elderly and also focus on what there is to do.

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Theme IV: Gender, social inequality and health

Research is based on the generation of new knowledge on gender and health to support health development, with the aim of contributing to social changes in gendered norm systems within populations and in health systems. Theme IV is structured into 3 research areas:

(1) Sexual and reproductive health and rights in culturally different settings Research investigates strategies and interventions to reduce gender-based violence, with a focus on men's roles.

(2) Implications of gendered social practices on chronic disease Seeks to develop evidence and theoretical understanding of how social practices and gendered conditions influence chronic disease patterns, with a view to developing NCD interventions based on gender sensitive strategies.

3) Social organisation, gender equality and health Work explores gender-related factors of social organisation that create health or ill-health, with the aim to understand social capital, paid and unpaid work and health care organisations, and their impact on gendered health outcomes.

The Millennium Development Goals posit gender analysis as being of utmost importance for the development of global health. Health conditions in the world would be impossible to analyse without comparing men and women, therefore gender is a key analytical parameter within research about human beings and their social conditions.

Research highlights Research to date shows that sexual and reproductive health and rights are still unfavourable for adolescents and young women in poor settings and also in welfare societies such as Sweden. Health professionals are not well educated in these issues and interventions are needed in health contexts to empower women experiencing gender-based violence. Qualitative and quantitative analyses show that, globally, smoking habits are extremely gendered; studies in Indonesia have raised several questions regarding the empowerment of women to not imitate the unhealthy behaviour of men, the avoidance of gender stereotyping in smoking education and the deconstruction of masculinities in designing smoking cessation programmes. In contrast, smoking has been found to have decreased among both women and men in Sweden, and previous assumptions regarding the use of moist snuff to foster smoking cessation still remain to be proven.

Gender-based violence, and especially intimate partner violence, is increasingly recognised as a global gender-based public health threat that needs to be fully understood. Ongoing and future research will therefore explore child outcomes, protective and risk factors for intimate partner violence (IPV) in Latin America; health workers' and community groups' perceptions about IPV and their roles in care and prevention in sub-Saharan Africa; and urban and rural women's experiences of domestic violence in South-East Asia alongside men's roles in prevention (Figure 1).

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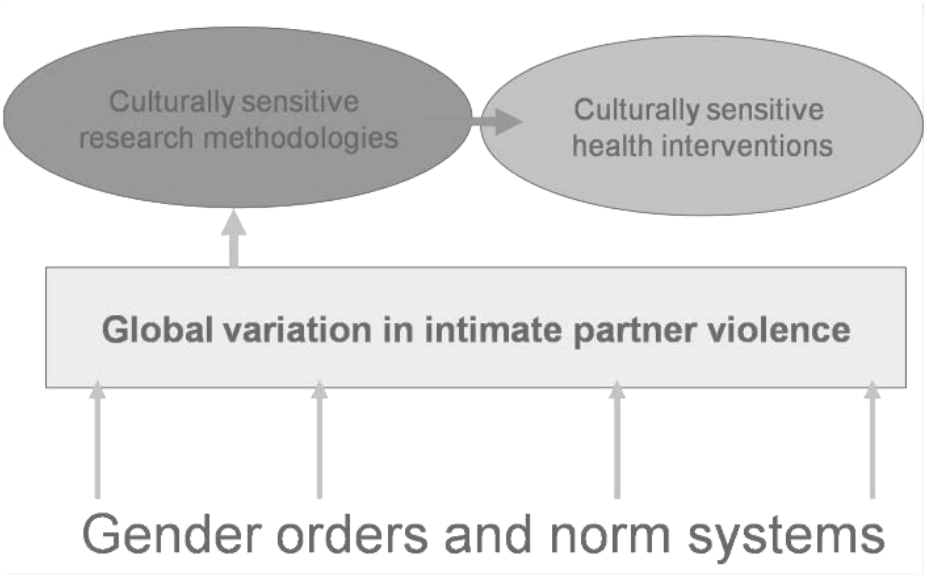

Contextualising intimate partner violence to improve global health

Theme V: Climate change and health

In recent years, there has been a growing awareness of the fundamental risks to human health posed by man-made climate changes. The effects are inequitably distributed; by far the largest adverse health effects of climate change are and will continue to occur in low and middle income countries. Worldwide, research on the relationship between global environmental change and health is still in its infancy. The recent report of the IPCC treated the health link in detail but was largely a document spelling out a huge knowledge gap in both the impacts on health and the uncertainty of how to respond with early warning systems, drug and vaccine development, and other interventions that may protect the health of populations. Evidence on the health impact would serve as a valuable argument and motivator for commitments to reduce GHG-emissions.

Theme V focuses on four separate, but linked dimensions of the nexus between climate change and health:

1) Research on health impacts of climate change
- Indirect impacts (Malaria, Dengue and infections in the circumpolar area)
- Direct impacts (air pollution and heat effects)
- Linking climate models to disease data

2) Getting research into policy and practice
3) Teaching
4) A global lens

In 2009 Umeå Centre for Global Health Research was, after an application from Theme V, formally admitted as an observer organization by UN to attend climate meetings; the COP and its subsidiary bodies. A thematic cluster of papers was published as a special volume of Global Health Action (www.globalhealthaction.net). The cluster contained 22 scientific articles addressing direct and indirect impacts of climate change on health, covering two research strands; Infectious diseases and heat, work and health. Theme V participated in COP15 in Copenhagen and the cluster of papers were conveyed to all national delegations as a special bound volume. A new research course called "Climate change and health – research methods" was approved in spring 2009 by the research board at Umeå University, planned to be given in week 3 and 4 in January 2010. A global lens is applied on activities within Theme V meaning that topics are pursued in the north and in the south; in low-, middle- and high income countries.

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Global Health Action

A major asset of CGH is our international peer-reviewed open access journal, Global Health Action (www.globalhealthaction.net). Launched in May 2008, GHA seeks to contribute to fuelling a more concrete, hands-on approach to global health challenges. The Centre's capacity-building efforts and inclusive nature is embedded in the journal through mentorship opportunities offered to authors and its open access model. GHA particularly welcomes articles from low- and middle-income countries, as well as those stemming from South-South and South-North research collaborations. GHA has already published 65 articles of various kinds, and continues to attract topical and high quality submissions. A highlight for this year was our themed issue "Climate Change and Global Health". GHA is published in association with open access publisher Co-Action Publishing (www.co-action.net).

3. Training at Umeå International School of Public Health

Graduation ceremony 2009 (Photo: Kicki Olson)

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

Master Programme in Public Health

Following the Bologna process, the Umeå master programme in public health now is a two-year programme, comprising 120 ECTS (European Credit Transfer and Accumulation System) credits. Of the four semesters, three are dedicated to course work (90 credits) and one (30 credits) to thesis research work.

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

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

All Profiles
Common core courses (45 ECTS credits)
Global Public Health – an introduction
Biostatistics, part 1
Epidemiology, part 1
Epidemiology, part 2
Qualitative Methodology 1
Global Public Health – policy and practice

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

completed all the research methods courses included in the common core of the programme.

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

The Epidemiology Profile
Common core courses (45 ECTS credits)
Profile courses (30 ECTS credits)
Advanced methods in Epidemiology
Biostatistics, part 2
Evaluation in Public Health
Public Health Informatics or Social Epidemiology or Chronic Diseases Epidemiology
Elective courses (15 ECTS credits)
Public Health courses from UISPH or elsewhere
Thesis (30 ECTS credits)

The Health Systems Profile
Common core courses (45 ECTS credits)
Profile courses (30 ECTS credits)
Advanced Topics in Health Economic Evaluation Methods*
Evaluation in Public Health*
Health Care Care Management*
Health Economic Evaluation Methods*
Health Systems. Organization and Financing*
* Four of the five courses above must be taken
Elective courses (15 ECTS credits)
Public Health courses from UISPH or elsewhere
Thesis (30 ECTS credits)

The Social Conditions and Health Profile
Common core courses (45 ECTS credits)
Profile courses (30 ECTS credits)
Social pathways in global health and health promotion
Social and gender inequalities in global health
Qualitative Methodology 2
Social Epidemiology
Elective courses (15 ECTS credits)
Public Health courses from UISPH or elsewhere
Thesis (30 ECTS credits)

Our target is to have 40 new students start the programme each fall. However, this is easier "planned than done". Historically we have received about half of the students we admit. At the start of the academic year 2008/09 we had admitted 80 students, of which only 28 finally came. The major reason was problems with, and time delays related to, the residence permits' process. For the academic year 2009/10 our programme was for the first time included in the national admissions process for higher education. Due to the experience from the previous year, and uncertainties about how the national admissions process would work, we admitted 121 students, of which 58 were finally registered in the programme.

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.

Summer course: Epidemiology and Field Research Methods

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

The course has become an important research training base for health researchers, health planners and practitioners from the global network that Sweden is part of. In 2009, we received around 100 applications for the 24 available course places. We strive for an international and multidisciplinary attendance where the participants' own experiences are part of the curriculum. Quantitative and qualitative methodologies are practically applied to analyse authentic data from our research collaborations. The course is given high priority and the team of teachers/facilitators always includes colleagues from the bilateral collaborations out of which the data material emanates.

We admitted 20 participants for the summer course in 2009. Four of the participants came from Sweden. Other countries represented were Ethiopia, India, Indonesia, Nicaragua, Nigeria, Palestine, Somalia, Spain, Tanzania, The Netherlands, Uganda and Vietnam.

Summer course participants 2009 (Photo: Kicki Olson)

Research training

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, 2009) 47 research students are registered at the department, 17 men and 30 women (Table 5). 27 PhD students have been recruited within international research collaborations, while 20 are Swedish based research students. In the period 1987 – 2009 63 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.

Swedish Research School for Public 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 seek the Swedish Research Council's support for development and strengthening of 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 courses, already existing and new ones form the backbone of the research school. Seminars and special workshops complement the courses and facilitate the process of networking. In May 2009 a successful one week international workshop on PhD supervision was conducted. Twenty two students were admitted to the research school in the first intake in May 2008 with an additional 13 students joining in 2009.

Biomedical programme

During the first semester of the 'Biomedical programme', our unit is responsible for a 5-point course in *Epidemiology and biostatistics*. In the autumn 2009 course, 38 students participated.

Table 4. Seminars at the department 2009.

January	**Alireza Khatami -** Phd proposal. Development of a Quality of Life instrument for Cutaneous Leishmaniasis
February	**Julie Sorensen –** Dissertation. The Use of Social Marketing for Injury Prevention: Changing risk perceptions and safety-related behaviors among New York farmers
March	**Urban Janlert.** Is there a risk with the risk factor concept?
	Nicole Westmarland (Durham University, England) . Routine Enquiry about Domestic Violence in General Practices: a Pilot Project
April	**Åsa Bergenheim.** Vad är forskarhandledning?
	Rainer Sauerborn & Birgitta Evengård. Climate change and global health
	Fyson Kasenga – Pre dissertation. Demand and adherence of a PMTCT programme in rural Malawi
	Tomas Blomquist – Experiences from teaching on the net
	Kumanan Rasanathan, World Health Organization. The World Health Report 2008: an insider's perspective
	Tord Kjellström. Occupational health impacts of climate change
	Anders Emmelin – Dissertation. Counted – and then? Trends in child mortality in an Ethiopian demographic surveillance
	Erika Arteaga – Phd proposal. Primary health care and intercultural health in the Amazon region of Ecuador: from policy to practice
May	**Setareh Forouzan** - PhD proposal. The Mental Health Care System Responsiveness in Iran
	Maria Nilsson – Dissertation. Promoting health in adolescents - preventing the use of tobacco
	Hendrew Lusey - Report of the Global Symposium on engaging men and boys to address gender inequality: some key issues discussed
	Johannes Siegrist. The social basis of healthy ageing.
	Alan Parkinson. Circumpolar Health: Beyond the International Polar Year
	Mark Collinson – Dissertation. Socio Economic Status, Migration and Helth Dynamics in the Rural Northeast of South Africa in the Period 1992-2005
	Karyn Sandström. Some Tips to Supervise English Writing
June	**Le Van Hoi Health** – Midterm seminar. Needs and Care for Older People: A Community-Based Study in A Rural Area of Vietnam
August	**Leif Persson.** Vårdval - En revolution eller en krusning på primärvårdens yta?
	Kathy Kahn. Consortium for Advanced Research Training in Africa (CARTA): its development, program and future
	Barnabas Njozing – Midterm seminar. The co-epidemic of tuberculosis and HIV/AIDS. Barriers/motivators to provider-initiated testing and counselling for HIV among TB patients in the Northwest Region of Cameroon
September	**C**entre for **G**lobal **H**ealth seminar. **Ruth Bonita and Robert Beaglehole.** A global public health score card
	Anne Neuman – PhD proposal. Prevention of Type 2 Diabetes Mellitus. Modelling the cost-effectiveness of diabetes prevention
	Klas-Göran Sahlén – Dissertation. An ounce of prevention is worth a pound of cure – Preventive Home Visits among healthy seniors in the north of Sweden
October	**Alison Hernandez** - PhD proposal. Health service delivery in rural Guatemala: supporting the performance of auxiliary nurses
	Isabel Goicolea – Pre-dissertation. Adolescent Pregnancies in the Amazon of Ecuador - a rights and gender approach to girls´ sexual and reproductive health
	Miguel San Sebastian. Measuring performance of health systems using data envelopment analysis: an example from Ethiopia.
	Fyson Kasenga – Dissertation. Making it happen: Prevention of mother to child transmission of HIV in rural Malawi
	Mariano Salazar – Midterm seminar..A cohort study of IPV, maternal and child outcomes and ending of abuse
November	**Rose Laisser** – Midterm seminar. The role of healthcare workers and the community in support and prevention of Intimate Partner Violence in Tanzania
	Cahya Utamie Puji Lestari – PhD proposal. Risk factors of type 2 Diabetes and their trends in Purworejo District, Indonesia
	Maria Furberg – PhD proposal. Climate change related aspects of health in northern Sweden
	Isabel Goicolea – Dissertation. Adolescent Pregnancies in the Amazon of Ecuador - a rights and gender approach to girls´ sexual and reproductive health
	Tej Ram Jat - PhD proposal. Maternal Health and Emergency Obstetric Care in Madhya Pradesh State of India: A case study of Khargone district
	Stephen Maluka- Midterm seminar. A Strategy to Improve Priority Setting in Health Care Institutions: Implementing Accountability for Reasonableness at the District Level in Tanzania
	Tesfay Gebregzabher – PhD proposal. Evaluation of health extension program in promoting maternal health care services at Tigray region, Ethiopia
December	**Hussein L Kidanto –** Dissertation. Improving quality of perinatal care through clinical audit; a study from a tertiary hospital in Dar es Salaam, Tanzania
	Cynthia Anticona – PhD proposal. An environmental health study: The case of heavy metals exposure in the indigenous communities of the Corrientes river basin- Perú

Table 5. Doctoral students registered at the division 2009.

Name	Professional background	Thesis subject
Monika Appel	Sociologist	Creative competition or hampering hierarchy-a study concerning the academic working environment focusing on the doctoral student
Mark Collinson	Epidemiology/demography (diss. 090515)	Socioeconomic status, migration and health dynamics in the rural northeast of South Africa in the period 1992-2005
Kristina Edvardsson	Nurse	Child health promotion and surveillance. The challenge of innovation, implementation and change
Anders Emmelin	BSc, health inspector (diss. 090424)	Air pollution epidemiology
Malin Eriksson	Social worker	Socialt kapital som verksam resurs i befolkningsinriktade folkhälsointerventioner – förutsättningar, hinder och möjligheter.
Setareh Forouzan	MD	The mental health care system responsiveness in Iran
Gasto Frumence	Political sciences	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
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
Alison Hernandez	Nurse	Health service delivery in rural Guatemala: Supporting the performance of auxiliary nurses
Le Van Hoi	MD	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
Kidanto Hussein	MD (diss. 091204)	Perinatal mortality in a tertiary centre
Shabbir Ismail Abbas	MD, Community Health	Epidemiology of HIV/AIDS and high risk sexual behaviours among populations of Central Ethiopia
Helen Johansson	Physiotherapist	Professionernas syn på hinder och möjligheter för en mer hälsofrämjande hälso- och sjukvård
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
Fyson Kasenga	MD (diss. 091023)	Demand and adherence of a Prevention of mother to child transmission (PMTCT) of HIV programme in rural Malawi
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
Rose Laisser	Midwife	Health worker´s and community groups´perceptions about intimate partner violence and their roles in care and prevention in Tanzania
Kristina Lindvall	Dietician	Those who are able to be stable – Primary weight maintenance as a public health strategy for obesity prevention
Gunnar Lundqvist	MD	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	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
Anna Myleus	Medical intern	The Swedish Epidemic of Celiac Disease in Children. Aetiology and clinical expression explored by epidemiological research methods
Anne Neumann	???	Prevention of Type 2 Diabetes Mellitus: modelling the cost-effectiveness of diabetes prevention
Maria Nilsson	Social worker (diss. 090508)	Hälsofrämjande arbete bland ungdomar – att förebygga tobaksbruk
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	The co-epidemic of tuberculosis and HIV/AIDS. Barriers to voluntary counselling and testing (VCT) among TB patients in the northwest province of Cameroon
Leonie Dapi Nzefa	Nutritionist	Food habits of school children in relation to socioeconomic and cultural factors in Cameroon
Firdy Permana	MD	Environmental tobacco smoke exposure (ETS): children's respiratory effects and the strategy to reduce domestic exposure
Zainonisa Petersen	MsC, BA	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
Ari Probandari	MD	Capturing the Potentials and the Barriers of Scaling up directly observed treatment short-course (DOTS) in hospitals on Java Island, Indonesia
Nguyen Ngoc Quang	MD	Women & hypertension in rural area of Vietnam. Perceptions, risk factors, burden and solutions
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
Klas-Göran Sahlén	Nurse (diss. 090918)	Missgynnas äldre i hälsoekonomisk utvärdering? – illustration från två lokalsamhällen.
Mariano Salazar	MD	A cohort study of intimate partner violence, maternal and child outcomes and ending of abuse
Rubina Shaheen	MD	Combined interventions against maternal depletion and low birth weight in Bangladesh: Issues of cost effectiveness, compliance and equity
Pham Thai Son	MD	Management of hypertension at community level in rural Vietnam – an intervention study
Julie Sorensen	Antropologist (diss. 090220)	Changing risk perceptions and safety-related behaviours associated with tractor rollovers in New York farmers
Ann Sörlin	Physiotherapist	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
Susanne Waldau	Journalist	An organisational strategy for priority setting in health care
Maria Wiklund	Physiotherapist	"Kroppsjag, empowerment och välbefinnande" - Prevention och hälsofrämjande för tonårsflickor med stressrelaterad & psykosomatisk ohälsa
Maj Lis Voss	Economist	Assessing pre-adolescent well-being in low income and high income countries

Table 6. Visiting scientists and guest researchers at the division during 2009.

Australia	Tord Kjellström	National Centre for Epidemiology and Population Health The Australian National University, Canberra
Bangladesh	Kim Streatfield	ICDDR,B Dhaka
Cameroon	Barnabas Njozing Nwarbébé	Cameroon Baprist Convention, Bamenda
	Muffih Pius Tih	Cameroon Baprist Convention, Bamenda
Congo	Hendrew Lusey	Salvation Army, DR Congo (Ecumenical HIV and AIDS Initiative in Africa)
Denmark	Paul Bloch	University of Copenhagen
	Finn-Kamper Jorgensen	National Public Health Institute, Copenhagen
Ecuador	Isabel Goikolea	UNFPA (United Nations Population Fund), Coca
	Erika Arteaga	
Ethiopia	Yemane Berhane	Addis Continental Institute of Public Health, Addis Ababa
	Meaza Demissie	Addis Continental Institute of Public Health
	Fikru Tesfaye	School of Public Health, Addis Ababa University
	Mesfin Belete	Community Health Department, Addis Ababa University
	Mesganaw Fantahun Afework	School of Public Health, Addis Ababa University
	Abera Kumie	Community Health Department, Addis Ababa University
	Hassen Nuru	Addis Ababa Health Bureau, Addis Ababa
	Hailemariam Lemma	Tigray Health Bureau, Mekelle
	Wubegzier Mekkonen	School of Public Health, Addis Ababa University
	Fikre Enquoselassie Gashe	School of Public Health, Addis Ababa University
	Teshome Shibre Kelkile	
	Tewabech Zewde	
	Tesfay Gebebrehiwot	Department of Public Health, Ayder College of Health Sciences, Mekelle University
Finland	Pekka Virtanen	Dept. of Community Health, University of Tampere
Germany	Heikko Becher	Institute of Public Health, Unit of Epidemiology and Biostatistics, University of Heidelberg, Heidelberg, Germany
	Anne Neumann	Dept of Medicine III, Prevention and Care of Diabetes, University of Dresden
Guatemala	Lorena Ruano	Centro de Estudios para la Equidad y Gobernanza en los Sistemas de Salud
	Walter Flores	Centro de Estudios para la Equidad y Gobernanza en los Sistemas de Salud
India	Bhoomikumar Jegannathan	The Centre for Child Mental Health in Cambodja
	Tej Ram Jat	United nations Population Fund, Madhya Pradesh State
	Bharati Sharma	
	Ashish Phatak	
	Krushna Saho	
	Anand Krishnan	All-India Institute of Medical Sciences, Delhi
Indonesia	Ari Probandari	Department of Public Health, Faculty of Medicine, Sebelas Maret University, Surakarta
	Fatwa Sari Tetra Dewi	Department of Public Health, Faculty of Medicine, Gadjah Mada University, Jogjakarta
	Elli Nur Hayati	Rifka Annisa Research and Training Center, Jogjakarta
	Endy Paryanto Prawirohartono	Department of Pediatrics, Faculty of Medicine, Gadjah Mada University, Jogjakarta
	Ekawaty Haksari	Department of Pediatrics, Faculty of Medicine, Gadjah Mada University, Jogjakarta
	Hari Kusnanto	Department of Public Health, Faculty of Medicine, Gadjah Mada University, Jogjakarta
	Ali Ghufron Mukti	Dean, Faculty of Medicine, Gadjah Mada University, Jogjakarta
	Titi Savitri	Vice Dean, Faculty of Medicine, Gadjah Mada University, Jogjakarta
	Cahya Utamie Puji Lestari	Faculty of Medicine, Gadjah Mada University, Yogyakarta
Iran	Alireza Khatami	Center for Research and Training in Skin Diseases and Leprosy, Teheran University of Medical Sciences
	Setareh Forouzan	Social Determinants of Health Research Center
	Nojomi Marzieh	Clinical Epidemiology, Dept of Community Medicine, School of Medicine, Iran University of Medical Sciences (IUMS), Teheran

	Hassan Haghparast	
Laos	Vanphanom sychareun	Medical faculty, University of Health Sciences, Vientiane
Malawi	Fyson Kasenga	Malamulo SDA Hospital, Makwasa
Mozambique	Ana Montiero	
New Zealand	Ruth Bonita	University of Auckland
	Robert Beaglehole	University of Auckland
Nicaragua	Eliette Valladares	CIDS, UNAN-León, León
	Rodolfo Peña	CIDS, UNAN-León, León
	Mariano Salazar	CIDS, UNAN-León, León
	Aurora Aragon	Centro de Investigación en Salud, Trabajo y Ambinete UNAN-León, León
Nigeria	Ime John	
Norway	Nils-Gunnar Songstad	Center for International Health, University of Bergen
	Odd Nilssen	Universitetet I Tromsö
South Africa	Stephen Tollman	University of the Witwatersrand, Johannesburg
	Kathleen Kahn	University of the Witwatersrand, Johannesburg
	Mark Collinson	University of the Witwatersrand, Johannesburg
	Elisabeth Thomas	MFC and Centre for Health Policy, WITS University, Johannesburg
	Perpetua Modjadji	University of Limpopo
	Beverley Kramer	University of the Witwatersrand, Johannesburg
	Loyiso Nongxa	University of the Witwatersrand, Johannesburg
Spain	Laura Otero	Spanish National Institute of Public Health
Sweden	Gunilla Lindmark	IMCH, Uppsala Universitet
Tanzania	Gideon Kwesigabo	Epidemiology and Biostatistics, MUHAS, Dar es Salaam
	Japhet Killewo	Epidemiology and Biostatistics, MUHAS, Dar es Salaam
	Hussein Kidanto	Dept of Obstetrics and Gynaecology, MUHAS, Dar es Salaam
	Projestine Muganyizi	Dept of Obstetrics and Gynaecology, MUHAS, Dar es Salaam
	Gasto Frumence	Institute of Development Studies, MUHAS, Dar es Salaam
	Felix Kisanga	Community Health Department, MUHAS, Dar es Salaam
	Rose Laisser	Midwifery School, MUHAS, Dar es Salaam
	Stephen Maluka	Institute of Development Studies, Dar es Salaam
	Edith Tarimo	FS
	David Urassa	Dept of Community Health, MUHAS, Dar es Salaam
	Peter Kamuzora	Health policy and systems, Institute of Development Studies, University of Dar Es Salaam
	Mark Ssennono	University of Heidelberg
Uganda	John Porter	London School of Hygiene and Tropical Medicine, London
UK	Paul Jenkins	Basset Research Institute, Cooperstown, New York
USA	Julie Sorensen	Basset Research Institute, Cooperstown, New York
	John May	Basset Research Institute, Cooperstown, New York
	Katrina Nordyke	Faculty of Nursing, Keshena
	Michael Kimmel	Stoney Brook University, New York
	Chuc Nguyen Thi Kim	Public Health, Hanoi Medical University, Hanoi
Vietnam	Tran Thanh Do	Public Health, Hanoi Medical University, Hanoi
	Hoang Van Minh	Public Health, Hanoi Medical University, Hanoi

4. ADVOCACY

Consultancy and advisory functions

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

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

We are also engaged in various consultancy and advisory functions. Some of these missions during 2009 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 2009 eight such grants were administered by our department. Reports from all the field studies are now being published in a report series. From 2010 Sida has approved nine grants. The assessment of applicants is performed by a committee including Birgitta Åström, Anna Rosén and Maria Emmelin.

Table 7. Consultancy and advisory functions of staff members

Staff member	Function	Duration
Peter Byass	Editorial consultant to the Ethiopian Journal of Health Development	2002-
	Deputy Editor, Global Health Action	2007-
	Editorial Board, PLoS Medicine	2009-
	Chair, Indepth Cause of Death group	2008-
Kjerstin Dahlblom	Assistant Swedish Programme Coordinator for the UNAN-León – Sida/SAREC Research Cooperation Programme	2006-2011
Kerstin Edin	Consultant for The Swedish National Institute of Public Health.	2008-2009
Maria Emmelin	Minor field study handling officer	2000
	Member of a scientific advisory group for a report on "The health of Swedish National Minorities" organised by the Swedish Public Health institute	2009-
	Co-editor, Editorial Board, Global Health Action	2007-
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-
	Contributing to a systematic review on "The mental health of school children – trends and sociodemographic differences" for the Health Committee of the Royal Swedish Academy of Sciences	2008-
	Member of the scientific advisory board of the Swedish National Public Health Institute	2009-
Anneli Ivarsson	Scientific leader of a Child Health Intervention Programme (Salut)	2005-
	Scientific advisor on coeliac disease for the Swedish Society for Celiacs.	2007-
	Chair of the Working Group on coeliac disease for the Swedish Paediatric Association	2008-
	Contributing to a systematic review on "The mental health of school children – trends and sociodemographic differences" for the Health Committee of the Royal Swedish Academy of Science	2008-
Urban Janlert	Deputy chairman of SEEC (East Europe Committee of the Swedish Health Care Community) scientific advisory group	2006-
	Board member of Umeå Centre for Evaluation Research	2000-
Lars Lindholm	Board member of the National Expert Group on A Health Promoting Medical Service, organised by the National Public Health Institute	2003-
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-
	Mentor for employees at the Swedish National Public Health Institute	2008-
Margareta Norberg	Medical coordinator for the Västerbotten Intervention Program	2008-
Lennarth Nyström	Member of the Editorial Board of the Central African Journal of Medicine	2001-
	Member of the executive Board of the European Breast Cancer Network	1998-
	Swedish representative in the International Breast Screening Network (IBSN)	1997-
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-
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 Scientific Advisory Committee of INDEPTH, the International Network for Demographic Surveillance in Developing Countries	2003-
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 2009-

Ahmed S, Hadi A, Razzaque A, Ashraf A, Juvekar S, **Ng N,** et al. Clustering of chronic non-communicable disease risk factors among selected Asian populations: levels and determinants. Global health action 2009 Sep 28;2. doi: 10.3402/gha.v2i0.1986.

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