

ISPM News Archive 2015

Increased risk of childhood leukaemia in the vicinity of highways



03.11.2015

ISPM researchers found that young children living in the close vicinity (<100 m) of a highway have an increased risk of leukaemia.

Traffic emissions contain substances, such as benzene, that are known carcinogens. This week, a study by Ben Spycher, Claudia Kuehni and other researchers from the ISPM together with colleagues from Bern, Basel, and Lausanne was published in European Journal of Epidemiology suggesting that traffic related pollution may increase the risk of leukaemia in young children. The researchers included all children in the Swiss National Cohort aged less than 16 years - over 2 million children – and identified children who developed cancer through the Swiss Childhood Cancer Registry. They compared risk for different cancer types (including leukaemia, lymphoma and brain tumours) in children living less than 100 m, 100-250 m and 250-500 m from the nearest highway to that in children living more than 500 m from a highway. Among children living closest to highways (<100 m) the risk for leukaemia was found to be about 50% higher. When the researchers looked at different age groups, a twofold increase in risk was found in children aged 0-4 years, but no evidence of an increased risk in older children.

Links

- [Journal article](#)
- [Media report release by the University of Bern](#)
- [Swiss National Cohort](#)
- [Swiss Childhood Cancer Registry](#)

Health risk assessment and counselling improves survival in older people



20.10.2015

A study published this week in PLOS Medicine shows that a collaborative care model improves health behaviors and survival among community-dwelling older people.

In almost every country, the over-60 age group is growing faster than any other age group. Programs that encourage a healthy lifestyle and the uptake of preventative care among older people are a health policy priority. In this pragmatic trial, Andreas Stuck from University Hospital Bern and ISPM researchers André Moser, Marcel Zwahlen and Matthias Egger found that health risk assessment by self-administered questionnaire combined with two years of personal reinforcement by trained counselors was effective in reducing the average participant's number of risk factors and preventative care deficits. For example, at the 2-year follow-up, 70% of the intervention group were physically active compared to 62% of the control group and 66% of the intervention group had had an influenza vaccination that year compared to 59% of the control group. Over the 8-year follow-up, the mortality rate was 3.2 per 100 person-years in the intervention group, as compared to 4.0 in the control group (Hazard Ratio 0.79, 95% CI 0.66–0.94, $p = 0.009$). To avert one death over eight years, 21 individuals would need to receive the intervention. These findings suggest that the use of regionally adapted approaches for health risk assessment combined with individual counseling might be an effective way to improve health and survival among non-disabled older people.

Stuck AE, Moser A, Morf U, Wirz U, Wyser J, Gillmann G, et al. (2015) Effect of Health Risk Assessment and Counselling on Health Behaviour and Survival in Older People: A Pragmatic Randomised Trial. PLoS Med 12(10): e1001889. doi:10.1371/journal.pmed.1001889.

Link to the study:

<http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001889>

More prizes for our PhD students!



14.10.2015

In the last few weeks, four PhD students working at the ISPM Bern were awarded prizes for their abstracts at conferences or for their Master thesis. Congratulations!

SSPH+ PhD Programme Student Abstract Award 2015, 1st prize, Swiss Public Health Conference, September 17 – 18, Geneva:

Matthias Schindler: Cause-specific late-mortality in 5-year survivors of childhood cancer in Switzerland - a population based study.

Matthias's project describes cause specific mortality in a population based cohort of childhood cancer survivors in Switzerland compared to the Swiss general population. The study uses data from the Swiss Childhood Cancer Registry linked to routine mortality data. The study is funded by the Swiss National Science Foundation and the Swiss Bridge Foundation. The study started in August 2012 and should have the final results by the end of 2015.

SSPH+ PhD Programme Student Abstract Award 2015, 2nd prize, Swiss Public Health Conference, September 17 – 18, Geneva

Annette Weiss: Hearing impairment in Swiss childhood cancer long-term survivors.

Annette's project determines the prevalence of hearing loss and tinnitus in Swiss childhood cancer long-term survivors compared to siblings by using data from the Swiss Childhood Cancer Survivors Study. The study confirms chemotherapy with platinum compounds and radiation to ear as risk factors for hearing loss after childhood cancer. The Swiss Cancer League and the European Union funded this project, which started in October 2014.

Student Abstract Award 2015, 1st prize, Evolutionary Medicine Conference: Interdisciplinary Perspectives on Human Health and Disease, July 30 – August 1, Zürich:

Stephanie Fingerhuth: Rates of antibiotic resistance evolution in gonorrhoea.

Stephanie's project uses mathematical modelling to optimize treatment strategies to slow down antibiotic resistance spread in the sexually transmitted disease gonorrhoea. Her study showed that an increased rate of treatment leads to an increased selective advantage for resistant gonorrhoea strains and thus leads to faster spread of resistance. The study is part of RADAR-GO, an interdisciplinary project that aims to develop a rapid molecular test for the diagnosis of antibiotic resistance in gonorrhoea. It is funded by SwissTransMed.

Young scientist sponsorship prize 2015 for "older students" of the German Society for Medical Informatics, Biometry and Epidemiology (GMDS):

Anita Feller won the sponsorship for her Master thesis "Avoidable mortality for causes amenable to health care in Switzerland", carried out at the Institute for Medical Biostatistics, Epidemiology and Informatics (IMBEI), Johannes Gutenberg University Mainz.

Anita's thesis investigated the association of socioeconomic inequalities and avoidable mortality in Switzerland and Swiss trends in avoidable mortality in comparison with 16 other high income countries. The project detected substantial socioeconomic inequalities in avoidable mortality in Switzerland but did not find evidence that these findings are related to inequalities in medical use or the quality of medical care. The results of the international comparison suggest high quality of medical care in Switzerland.

ESTHER Switzerland Secretariat moves to ISPM



12.10.2015

The Ensemble pour une Solidarité Thérapeutique Hospitalière En Réseau (ESTHER) was established by the French government in 2001 to address global inequalities in access to HIV drugs.

The gap in prevention and treatment of HIV/Aids between industrialized countries and the countries most affected by the epidemic in the South is an ongoing concern. The Ensemble pour une Solidarité Thérapeutique Hospitalière En Réseau (ESTHER) was established by the French government in 2001 to address the HIV/Aids epidemic. ESTHER Projects are based on the twinning of hospitals in the South and North to facilitate training, technical assistance and health services research. Today ESTHER is a European initiative, with currently 12 countries participating in the European ESTHER Alliance (EEA) to address various health challenges, including HIV/Aids. Switzerland joined the EEA in 2012. The Swiss Agency for Development and Cooperation (SDC), in collaboration with the Federal Office of Public Health, supported the establishment of an ESTHER Switzerland Secretariat which was hosted by Geneva University Hospitals until June 2015. Recently, SDC included ESTHER as a more strategic partner in its global health portfolio and decided not only to continue supporting the Secretariat but also to fund ESTHER Switzerland projects in the area of sexual and reproductive health including HIV/Aids. ISPM Bern's bid to run the Secretariat and to contribute to ESTHER Switzerland and EEA was successful. The ISPM team will consist of Matthias Egger, Luciano Ruggia, Olivia Keiser and Carmen Theler. We are looking forward to working with SDC, FOPH and EEA on this important initiative!

Links

- [European Esther Alliance EEA](#)
- [Esther France](#)

Dr. Georgia Salanti started this week her joint appointment with ISPM, BIHAM and CTU.



18.09.2015

Georgia arrived a few days ago from the University of Ioannina in Greece, where she is an Associate Professor in Biostatistics and Epidemiology.

She studied Mathematics (in Athens), Statistical and Operational Methods in Public Health (in Brussels), did a PhD in Statistics (in Munich) and obtained a Diploma in Sociology (from the Open University in UK).

She has worked in various Research Institutes and Universities, including MRC Biostatistics in Cambridge.

She works closely with the Cochrane Collaboration (where she co-convenes the Statistical Methods Group and the Comparing Multiple Interventions Methods Group). Her research has been funded by the European Research Council, the Cochrane Collaboration and the Greek Secretariat for Research and Technology.

The main focus of her research has been the statistical modelling in meta-analysis (and in particular network meta-analysis). She has published to-date more than 100 peer-reviewed articles.

If you want to find out more about her current and previous research activities in meta-analysis please visit

Links

- www.mtm.uoi.gr
- missoptima.project.uoi.gr

Ebola vaccine tested successfully for the first time



31.07.2015

A vaccine against the Ebola virus, tested in West Africa for the first time in a field trial, has proved to be effective according to the first interim analysis published today in *The Lancet*. ISPM researchers were involved in designing and implementing the World Health Organization (WHO) «Ebola ça Suffit» vaccine trial.

The Ebola virus disease epidemic in West Africa has not been defeated yet, although the number of cases has dropped substantially since the start of the year. Two vaccines that were recently developed have already undergone preliminary tests in humans. One of the vaccines, «rVSV-ZEBOV», has now been tested in the first large field trial of efficacy and effectiveness in Guinea, West Africa. Matthias Egger from the Institute of Social and Preventive Medicine at the University of Bern was heavily involved in this «Ebola ça suffit» trial, together with PD Dr. Sven Trelle and other staff from the Clinical Trials Unit CTU Bern at the University's clinical study centre and Bern University Hospital. The initial results of the study show that the vaccine can effectively contain the further spread of the Ebola virus. The results of the field study and the innovative study methods were just published in the «*Lancet*» and «*BMJ*».

Links

- Efficacy and effectiveness of a rVSV-vectored vaccine expressing Ebola surface glycoprotein: interim results from the Guinea ring vaccination cluster-randomized trial. *Lancet*, 31.7.2015.
Available at <http://www.thelancet.com/pb/assets/raw/Lancet/pdfs/S0140673615611175.pdf>
- Ebola ça Suffit Trial Consortium. *BMJ*, 27.7.2015.
Available at <http://www.bmj.com/content/351/bmj.h3740>

Joining forces: IEFM and ISPM merge



10.07.2015

As of January 2016 the Institute for Evaluative Research in Medicine (IEFM) and the Institute of Social and Preventive Medicine (ISPM) will merge and continue to work under the name ISPM.

IEFM's successful MEMdoc Portal, a system that facilitates the documentation process for clinicians and improves the quantity and quality of the collected data [link] has continued to grow. So has the need for ISPM's methodological expertise to analyze these complex, international and national datasets. The University has therefore decided to combine the two institutes' strengths in medical informatics and clinical epidemiology.

With this merger the combined workforce of around 150 will provide the critical mass to further develop the [MEMdoc Portal](#) and to design, maintain and analyze large healthcare registries and clinical databases in Switzerland and abroad using state-of-the-art technologies and methods.

One of the major challenges in developing software for medical environments is creating an effective communication chain between IT developers and the clinical staff in the hospitals. With the development team under the same roof as the medical research and customer support teams, the communication channels are expedited and the development team provided with timely and valuable feedback about the needs of the end users.

2014 impact factors are out



22.06.2015

Here is the news about the numbers that are really not that important ;-). Click on the [quicklink](#) for full details.

Several ISPM staff are editors or associate editors of scientific journals. The attached document shows trends for some of the journals that we're involved in:

[2014 impact factors for selected journals \(PDF, 407KB\)](#)

International Epidemiologic Databases to Evaluate AIDS - Southern Africa



22.06.2015

The leDEA-SA steering group meeting took place from 11 to 13 May 2015 in Victoria Falls, Zimbabwe.

Chaired by Matthias Egger and Mary-Ann Davies, site investigators, special guests and the Data Centre Teams from South Africa, Zimbabwe, Malawi, Zambia, Mozambique, Lesotho and Switzerland came together to celebrate the successes of the consortium and to focus on the research agenda and contribution of each cohort/ program for the next 5 years of leDEA-SA.

The meeting was a great success, very productive and enjoyable. And much to everyone's delight, a tour of the famous Victoria Falls was included in the agenda.

Funded by the US National Institutes of Health, the leDEA consortium addresses unique and evolving research questions in HIV/AIDS that are unanswerable by single cohorts. leDEA develops and implements methodology to effectively pool the collected data, thus providing a cost effective means of generating large data sets to address high priority research questions. By developing a pro-active mechanism for the collection of key variables, leDEA enhances the quality, cost effectiveness and speed of HIV/AIDS research.

Aerosolised measles vaccine did not work as well as subcutaneous vaccine in India



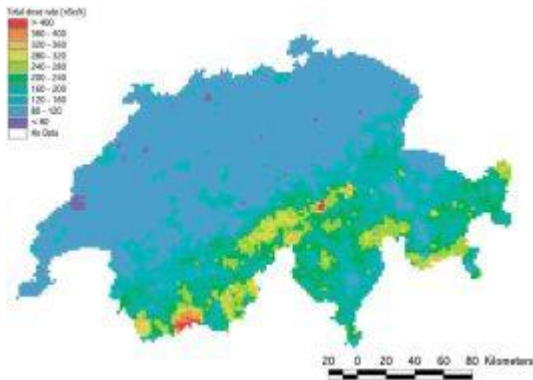
16.04.2015

The results of a large randomised trial are published today in the New England Journal of Medicine ([hypertext to link](#)). Nicola Low was an investigator on the trial, which was sponsored by WHO and the Serum Institute of India with funding from the Bill and Melinda Gates Foundation.

The trial aimed to show whether aerosolised measles vaccine, given by nebuliser, would result in similar levels of antibodies when compared with the usual subcutaneous injection. The children were all receiving their first dose of measles vaccine at 9 to 11 months of age and living in villages in Pune, in Maharashtra State, India.

Read the article [here](#).

Background ionising radiation affects cancer risk in children



27.02.2015

That ionising radiation increases cancer risks is well known from studies of people exposed to relatively high doses including atomic bomb survivors from Japan or patients receiving radiation therapy. But what about the more common low doses of radiation to which the population at large is exposed to such as natural background radiation or diagnostic radiology; do these also contribute to cancer risk and, if yes, do similar dose-response relationship apply?

This week, a study by Ben Spycher, Claudia Kuehni and other researchers from the ISPM together with colleagues from Basel, Zürich and Lucerne was published in *Environmental Health Perspectives* suggesting that the answer to the first of these questions is yes. The researchers included all children in the Swiss National Cohort aged less than 16 years - over 2 million children – and used a geographic radiation model to estimate levels of terrestrial and cosmic radiation at the children's homes. Diagnoses of cancers were identified from the Swiss Childhood Cancer Registry. A two-fold higher risk for leukaemia and brain tumours was seen among children exposed to dose rates of ≥ 200 nSv/h compared to those exposed to < 100 nSv/h. The researchers estimated that an increase in 1 mSv cumulative dose received since birth was associated with and 4% increase in risk both for leukaemia and brain tumours. However, statistical uncertainty was large and more large studies will be needed to establish reliable dose response relationships for low-dose ionising radiation.

Links:

- [Journal article](#)
- [Media report release by the University of Bern](#)
- [Swiss National Cohort](#)
- [Swiss Childhood Cancer Registry](#)
- [YouTube video by an independent video journalist](#)

GetReal Annual Meeting in Bern



27.02.2015

The second GetReal General Assembly was hosted by the ISPM and University of Bern the 28-29 of January 2015.

More than 100 participants from France, Italy, UK, Netherlands, Germany, Belgium, Switzerland and other European countries came to Bern to present first results of their work on incorporating real-world data into the drug development process. During these two days of intensive discussions and group workshops in the university main building, the network between academia, industry, HTA and regulatory agencies was consolidated, and strategies to achieve the goals of the project were developed. Matthias Egger, academic lead of the work package in charge of evidence synthesis and predictive modelling and leading the research team in Bern, invited the participants to join a city tour to the old town of Bern and the conference dinner in the restaurant of the Kornhauskeller.

Project website: www.imi-getreal.eu

Meeting of Young Researchers in Primary Ciliary Dyskinesia!



10.02.2015

On March 12-13th, 2015 the ISPM Bern will host the first international young researchers meeting, with a focus on PCD. The conference, organized by young scientists from Bern, Southampton and Copenhagen, provides a unique opportunity for scientific exchange among doctoral students and junior researchers who work on PCD.

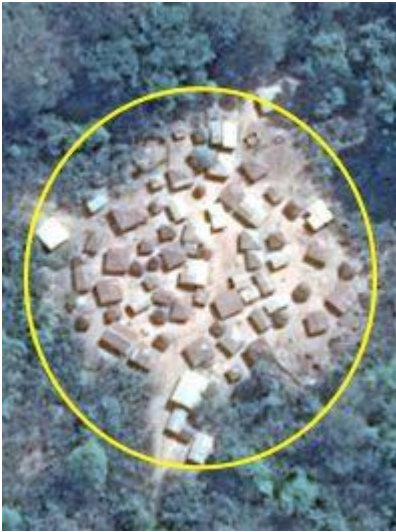
PCD is a rare, genetically heterogeneous disorder that affects about 1 in 10-20,000 individuals, caused by dysfunction of the small hair-like organelles (cilia) that clean our upper and lower airways. PCD causes severe, chronic, destructive airway disease and progressive loss of lung function. Additional health burdens include chronic ENT problems, cardiovascular disease (congenital heart defects), and subfertility.

Until recently, research on PCD was patchy. Over the last few years, PCD research has expanded and a growing group of scientists collaborates on national and international projects, including the EU funded [BESTCILIA](#) and a [COST action](#).

There is seldom opportunity to present research results on rare diseases like PCD at scientific conferences, for younger researchers it is even rarer. This conference is the first international PCD meeting to target young researchers who want to present and discuss their work in different fields of PCD, chair sessions, learn how to lead a discussion, exchange opinions, and network with other young researchers who work in the field. There will also be teaching lectures and invited talks by representatives of organizations of PCD patients.

For more information please contact [Myrofora Goutaki](#), President of the organizing committee.

Ebola Vaccine Trial in Guinea



15.01.2015

ISPM and CTU Bern will participate in a trial to evaluate the effectiveness of ring vaccination to control the current outbreak in Guinea, West Africa. We are urgently looking for staff to support this trial in Guinea and Bern.

The number of Ebola Virus Disease cases continues to fluctuate in Guinea, with no identifiable downward trend. At the same time Phase 1 studies of vaccine candidates have produced promising immunogenicity and safety results. These vaccines now need to be evaluated further for safety, efficacy and effectiveness.

Matthias Egger, Sven Trelle and Stefanie Hossmann from ISPM and CTU Bern have contributed to the design of a ring vaccination trial in Guinea, under the auspices of the World Health Organization. The trial will be performed as a randomized phase 3 trial to evaluate the efficacy, effectiveness and safety of one dose of either cAd3 or rVSV vaccine in the prevention of EVD when implemented as ring vaccination.

ISPM and CTU Bern will be responsible for the data management and statistical analysis, together with colleagues at WHO, the Norwegian Public Health Institute, the London School of Hygiene and Tropical Medicine and the University of Florida. The trial will be implemented by Médecins Sans Frontières who have been supporting the Ebola response in Guinea since the start of the epidemic.

We are urgently looking for data managers, trial coordinators, statisticians and IT specialists to support this very urgent study. Please contact [Stefanie Hossmann](#) if you are interested.

Links

- [WHO Ebola situation report](#)
- [News coverage on trials in Science](#)