

ISPM News Archive 2014

28.11.2014 14:56

Peter Jüni is the new professor of primary health care in Bern

ISPM Director, Prof. Dr. Peter Jüni, will be leaving to become the new chair of primary health care and director of the Bernese Institute of Primary Health Care (Berner Institut für Hausarztmedizin, BIHAM) on 1st December, 2014. Prof. Dr. Matthias Egger will resume the post of ISPM Director. We wish them both well.



The Department of Teaching and Research Management at Bern University Hospital and the University of Bern created the full professorship of primary health care at BIHAM. BIHAM's training and education programme aims to identify and communicate best practice in medicine and motivate young physicians to pursue a career as general practitioners. Research at BIHAM centres around primary health care provided by general practitioners.

BIHAM will develop and carry out projects with general practitioners in the region. The research programme will investigate both existing and new diagnostic tests and treatments to broaden and strengthen the evidence base for first-line clinical practice. The first research projects will look at cancer screening programmes, treatment of uncomplicated infections and therapy of osteoarthritis related pain.

Prof. Jüni trained as a physician at the University of Bern and has an international reputation for his methodological work in clinical epidemiology and for clinical research on the diagnosis and management of cardiovascular- and musculoskeletal disorders.

25.11.2014 09:06

Achievement Award for Matthias Egger

Matthias Egger receives Achievement Award from the Netherlands Epidemiology Society.



Picture credit: Netherlands Epidemiology Society

Prof. Dr. Matthias Egger from the Institute of Social and Preventive Medicine received the Achievement Award 2014 by the Netherlands Epidemiology Society, for his important contributions in fields such as the development of methods in Epidemiology and treatment of HIV infection in southern Africa, as well as his outstanding teaching skills.

17.09.2014 14:56

Accolades for our PhD students

Several PhD students won awards at recent conferences



Myrofora Goutaki won the ERS Grant for the Best Abstract in Paediatric Respiratory Epidemiology at the European Respiratory Society congress 2014.

Matthias Schindler won an SSPH+ PhD Abstract Award for the best abstract by a SSPH+ PhD student at the Swiss Public Health Conference 2014.

Laura Wengenroth won an SSPH+ PhD Abstract Award for the third best abstract by a SSPH+ PhD student at the Swiss Public Health Conference 2014.

Congratulations to all!

05.09.2014 16:00

Ebola virus modelling on SRF Wissenschaftsmagazin

Broadcast: Saturday, 6.9.12 at 12:40 on SRF2



(Picture: Reuters)

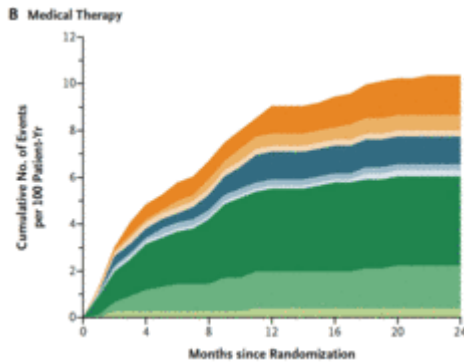
Read [preview on SRF website](#)

Listen to [broadcast on SRF website](#)

01.09.2014 15:41

Modern technologies for revascularisation superior to medical therapy in patients with stable coronary artery disease

Two related articles published today simultaneously in the *New England Journal of Medicine* and the *Lancet*



In an article published today in the [New England Journal of Medicine](#), Peter Jüni, Andreas Limacher and Eveline Nüesch from ISPM and CTU Bern, together with an international group of investigators, report on the benefits of modern percutaneous coronary intervention as compared with medical therapy in patients with stable coronary artery disease. The results are in line with a network meta-analysis published by Stephan Windecker, Bruno da Costa, Anne Rutjes, Peter Jüni et al on the same topic in the [BMJ](#) several weeks ago. In a related paper published today in the [Lancet](#), Dik Heg along with researchers from ISPM and Inselspital describes the performance of a novel drug-eluting stent in patients with myocardial infarction or stable coronary artery disease.

01.09.2014 12:47

Science features Ebola mathematical modelling predictions

“If the epidemic in Liberia were to continue in this way until the 1st of December, the cumulative number of cases would exceed 100,000,” says ISPM’s Christian Althaus.



No one can be sure what the eventual toll of Ebola virus disease in West Africa will be. *Science* journalist Kai Kupferschmidt interviewed Christian Althaus and mathematical modellers in the USA, saying, “scientists across the world are scrambling to create computer models that accurately describe the spread of the deadly virus... the modelers all agree that current efforts to control the epidemic are not enough to stop the deadly pathogen in its tracks.”

Christian Althaus posted the [first estimates of the reproduction number for Ebola virus](#) in the Guinea, Sierra Leone and Liberia outbreaks. The effective reproduction number (R_e) shows the potential for further spread after initial control efforts have started. In the *Science* article, Christian explained that, “‘In Guinea and Sierra Leone, R_e is close to 1 and the outbreak could be stopped if interventions improve a bit.’ In Liberia, R_e has been near 1.5 the whole time. ‘That means work is only just beginning there.’” (see photo of model output, which suggests that Ebola virus is still spreading exponentially in Liberia).

The full *Science* article is online at <http://news.sciencemag.org/health/2014/08/disease-modelers-project-rapidly-rising-toll-ebola>. Kupferschmidt also interviewed modellers Alessandro Vespignani in Boston, Ira Longini in Florida and Caitlin Rivers in Virginia. Vespignani, who uses data on international air travel in his model, says that Ghana, the UK and USA are most likely to introduce cases. Rivers, who has been modelling the effect of interventions, suggests that “In the most optimistic scenario, every contact of infected people is traced, and transmission in hospitals is reduced by 75%. Even that, while drastically reducing the number of Ebola deaths, did not push R_e below one.”

Jeremy Farrar, director of the Wellcome Trust in London stressed the importance of mathematical modelling in infectious disease control to Kupferschmidt, “They can help agencies such as WHO predict the medical supplies and personnel they will need—and can indicate which interventions will best stem the outbreak.”

Christian Althaus is leading ISPM’s modelling efforts to predict the spread of Ebola virus and the potential impact of control interventions with statistician Sandro Gsteiger and epidemiologists Nicola Low and Fabienne Krauer. Matthias Egger is a member of the WHO Ebola Deployment and Data Collection working group, which will meet in Geneva on 4-5th September.

If you are interested in additional sources of information about the Ebola virus epidemic, try:

World Health Organization: WHO provides regular updates and advice on its [Global Alert and Response page](#).

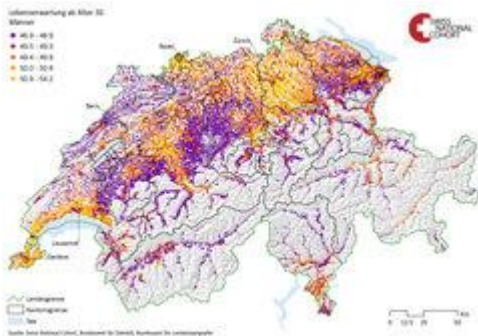
[ProMED](#) compiles surveillance reports and news items about all infectious diseases, including Ebola. You can sign up for email alerts

[Twitter](#): Yes, sign up and follow the latest Ebola virus news from news services and journals such as @nytimescience, @Promed-mail, @NatureNews, @ScienceMagazine, @bbcworldservice, @MicrobesInfect, and people like @davidfisman, @cmyeaton (Caitlin Rivers), @c_althaus, @nicolamlow.

Several major journals are allowing free access to all their published articles about Ebola virus, even the ones that usually charge for access: [The Lancet](#), [Science](#).

What does your neighbourhood say about you? A lot - according to analysis of Swiss National Cohort

Although Switzerland has one of the highest life expectancies in the world ISPM researchers found that there are substantial geographical differences.



In a study published this week in the *Journal of Epidemiology & Community Health*, André Moser, Radek Panczak, Matthias Egger and colleagues from ISPM and the Department of Geriatrics used data from the Swiss National Cohort, a longitudinal study of mortality based on the 2000 census to investigate life expectancy across Swiss neighbourhoods. A total of 1.3 million small neighbourhoods were included in the study. Life expectancy at age 30 years ranged from 46.9 to 54.2 years in men and from 53.5 to 57.2 years in women across Swiss neighbourhoods. These differences are in the order of magnitude of the differences observed between Switzerland and some middle-income countries, for example Cuba, Ecuador or Taiwan.

The detailed maps show that neighbourhoods of higher life expectancy were concentrated in the urban centres and along some of the lakes, for example the arc of Lake Geneva and both sides of Lake Zurich. Neighbourhoods of lower life expectancy were located north of the Alps, the area north of the lakes of Neuchâtel and Bièvre in the West of the country and in valleys of the Alps. Within the major cities differences were evident at the level of streets.

The association of life expectancy with the SEP of neighbourhoods, and other variables such as educational attainment, indicate that the differentials observed in this study can be reduced by policies aiming to improve the physical and social environment people live in, and health promotion targeting individual behaviours. The high-resolution maps presented here should help in the planning of such interventions and setting of priorities.

Link to journal article <http://jech.bmj.com/content/early/2014/08/14/jech-2014-204352>

Link to [life expectancy map \(men\)](#)

Link to [life expectancy map \(women\)](#)

Link to [maps of cities](#)

Link to Swiss National Cohort www.swissnationalcohort.ch

29.08.2014 11:07

Epidemiology Winter School 2015 in Wengen - registration now open!

The Winter School takes place in January during the week following the International Lauberhorn ski race, when Wengen is calm, with few people on the slopes. Students stay on site and work hard in the mornings. They then have an extended break to review course materials, catch up on emails or (more likely) go skiing or snowboarding. We reconvene at 5 pm for computer or practical sessions.



We offer **8 courses** in 2015 which run for 3 days, either from Monday to Wed or Thurs to Sat, during the week of **19-24 January, 2015**. Each course earns 1.5 ECTS.

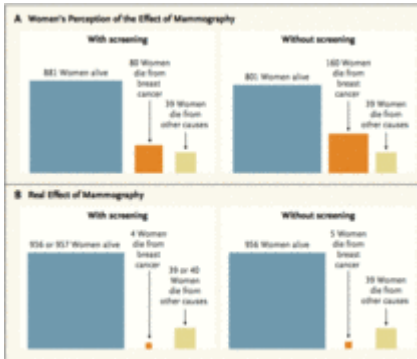
- **Flexible parametric survival models**
Professor Paul Lambert, University of Leicester and Karolinska Institutet
- **Causal Inference in Observational Epidemiology**
Prof. Miguel Hernan, MD, Harvard University
Prof. Marcel Zwahlen, University of Bern
- **Indirect Comparisons and Network Meta-Analysis: Evidence Synthesis with Multiple Treatments**
Prof. Julian Higgins, PhD, University of Bristol
- **Sequence Analysis in Molecular Epidemiology of Pathogens**
Dr. Iñaki Comas, Foundation for the Promotion of Health and Biomedical Research of Valencian Region
Leonor Sánchez-Busó, Foundation for the Promotion of Health and Biomedical Research of Valencian Region
- **Statistical Analysis with Missing Data Using Multiple Imputation and Inverse Probability Weighting**
Prof. James Carpenter, University of London
Dr. Manuel Koller, University of Bern
Dr. Kurt Schmidlin, University of Bern
- **Epigenetic Epidemiology for Epidemiologists**
Prof. Caroline Relton, University of Bristol
Prof. George Davey Smith, University of Bristol
- **Writing a Journal Article – and Getting it Published**
Dr. Kali Tal, University of Bern
- **Applied Bayesian Statistics in Medical Research**
Prof. Marcel Zwahlen, University of Bern
Dr. Sandro Gsteiger, University of Bern
Dr. Beat Neuenschwander, Novartis Oncology, Basel

Our website is now open for bookings. The number of participants is limited – book early to avoid disappointment.

The website of the Swiss Epidemiology Winter School can be found [here](#).

Breast cancer screening revisited

Commentaries published online in the New England Journal of Medicine and Annals of Internal Medicine suggest to think differently about breast cancer screening.



In the [first commentary](#), Nikola Biller-Andorno from University of Zürich and Peter Jüni from ISPM Bern describe how they became increasingly concerned when they reviewed the available evidence on mammography screening and contemplated its implications as members of the expert panel of the Swiss Medical Board.

In the [second commentary](#), Peter Jüni and Marcel Zwahlen of ISPM Bern discuss the conclusiveness of evidence about the benefits and harms of mammography screening and suggest that it may be time for another mammography trial. They argue that several trials showed inconsistent patterns of mortality and were therefore unreliable and suggest that the ultimate question for any cancer screening program is whether a reduction in cancer mortality really translates into saved lives.

09.04.2014 08:00

RADAR-GO: Rapid Diagnosis of Antibiotic Resistance in Gonorrhoea

RADAR-GO: Launch of an interdisciplinary project to develop a much needed test for antibiotic resistant Gonorrhoea



SwissTransMed is funding the project RADAR-Go (**R**apid **D**iagnosis of **A**ntibiotic **R**esistance in **G**onorrhoea) to develop a rapid molecular test for antibiotic resistance and to predict its impact using mathematical modeling. Gonorrhoea is a sexually transmitted infection that is becoming increasingly difficult to treat due to antibiotic resistance. Standard tests for antibiotic resistance can take up to three days and currently used rapid diagnostic tests do not detect antibiotic resistance. This leads to delayed and often inadequate antibiotic therapy. RADAR-Go aims to solve these problems and provide essential tools for future monitoring and treatment of antibiotic resistant gonorrhoea.

RADAR-Go will run until the end of 2016. The project is led by Prof. Nicola Low at the Institute of Social and Preventive Medicine (ISPM) in Bern. Collaborators are: the Institute of Infectious Diseases (IFIK) in Bern, ETH Zurich, Bern University Hospital and the Clinical Trials Unit in Bern.

For more information regarding this project, please contact the project manager Dianne Egli-Gany at [degli\[at\]ispm.unibe.ch](mailto:degli[at]ispm.unibe.ch) or Prof. Nicola Low at [low\[at\]ispm.unibe.ch](mailto:low[at]ispm.unibe.ch).

Links:

- [CDC Fact Sheet](#)
- [WHO's Global action plan to control the spread and impact of antimicrobial resistance in *Neisseria gonorrhoeae*](#)
- [Low N, et al. Molecular diagnostics for Gonorrhoea: Implications for antimicrobial resistance and the threat of untreatable Gonorrhoea. PLoS Med. 2014 Feb 4;11\(2\):e1001598](#)

11.03.2014 10:35

GetReal: launch of EU-funded project to get real life data into drug development

The Innovative Medicines Initiative (IMI), a large research programme funded by the EU, launched GetReal, with ISPM leading one of the work packages.



Once a new drug has been developed, it must be reviewed by both the regulators and health technology assessment (HTA) bodies. The regulators draw on data, mostly from clinical trials, to determine if a drug is safe and works well enough to be authorised for use in patients. For their part, HTA organisations assess the drug's 'relative effectiveness', which is the extent to which a treatment does more good than harm when compared to one or more alternative treatments when provided under normal healthcare circumstances.

To do this, HTA organisations need data from real life settings, yet there is little guidance on how to generate real world data and integrate the data into drug development before launch. The challenge is to incorporate alternative data sources and study designs into the earlier stages of drug research and development.

A group of ISPM researchers (Matthias Egger, Sven Trelle, Sandro Gsteiger, Klea Panayidou and others) will lead one of four GetReal packages. The theme of this work package is the estimation of relative effectiveness of drug interventions in chronic diseases based on different sources of evidence and methods, and the generalizability and applicability of relative effectiveness estimates to different patient populations. The investigators will use network meta-analysis and mathematical modelling and apply them to concrete case studies in oncology, cardiology and neurology. ISPM will work with researchers based at the University of Ioannina, Utrecht, Groningen and Leicester, and with pharmaceutical companies. The GetReal consortium is led by Diederick Grobbee (Utrecht) and Chris Chinn (GlaxoSmithKline).

GETREAL factsheet: <http://www.imi.europa.eu/content/getreal>

GETREAL website: <http://www.imi-getreal.eu/>

About IMI

The Innovative Medicines Initiative (IMI) is the world's largest public-private partnership in health. IMI is improving the environment for pharmaceutical innovation in Europe by engaging and supporting networks of industrial and academic experts in collaborative research projects. The European Union contributes €1 billion to the IMI research programme, and this is matched by in kind contributions worth at least another €1 billion from the member companies of the European Federation of Pharmaceutical Industries and Associations (EFPIA).

The Innovative Medicines Initiative currently supports 46 projects, many of which are already producing impressive results. The projects are all working to address the biggest challenges in drug development, with the goal of accelerating the development of safer and more effective treatments for patients

19.02.2014 09:20

Women, the educated and those living alone more likely to choose assisted suicide

Today ISPM researchers publish a study online in the *International Journal of Epidemiology* that shows assisted suicide is more common in women, the divorced, those living alone, the more educated, those with no religious affiliation, and those from wealthier areas.



[Image Credit: New York Daily News](#)

While euthanasia is prohibited in Switzerland, the penal code states that assisted suicide is legal if no selfish interests are involved. Assisted suicides in Switzerland involve volunteers working for “right-to-die” associations. The role of physicians is restricted to assessing the decisional capacity of the person requesting assistance and to prescribing the lethal drug. Notably, the person requesting assistance does not need to have a terminal illness.

In this study Nicole Steck, Matthias Egger and colleagues from ISPM, the Federal Office of Statistics and the University Hospital of Psychiatry Bern linked data from three right-to-die organisations to the Swiss national Cohort, a longitudinal study of mortality based on linkage of census and mortality records. The study followed those aged 25 to 94 from 1 January 2003 until their death, emigration, or the end of the study: a total of 5,004,403 people. Anonymous data on 1,301 cases of assisted suicide between 2003 and 2008 were provided by the three right-to-die organisations.

Assisted suicide was more common in women than men, in people with secondary or tertiary rather than compulsory education, in those living alone, and in those with no religious affiliation. The rate was also higher in urban compared to rural areas, in wealthier neighbourhoods, and in the French rather than German or Italian speaking areas of the country. Having children was associated with a lower risk of assisted suicide in younger people, although not in older people.

In 84% of cases the death certificates listed at least one underlying cause of death. In the age group 25-64 years the majority had cancer (57%), followed by diseases of the nervous system (21%). Eleven individuals had a mood disorder listed as the first underlying cause, and three had another mental or behavioural disorder. For all causes, except Parkinson’s disease, the percentage of assisted suicides was higher in women than men. In the 65-94 years age group, cancer was again the most common underlying cause (41%), followed by circulatory (15%) and diseases of the nervous system (11%). Thirty people had a mood disorder, and six had another mental or behavioural disorder.

Nicole Steck says, “Our study is relevant to the debate on a possibly disproportionate number of assisted suicides among vulnerable groups. The higher rates among the better educated and those living in neighbourhoods of higher socio-economic standing does not support the ‘slippery slope’ argument but might reflect inequities in access to assisted suicide. On the other hand, we found a higher rate among people living alone and the divorced. Social isolation and loneliness are well known risk factors for non-

assisted suicides and our results suggest that they may also play a role in assisted suicide. Also, the observation that women die more frequently by assisted suicide than men is potentially of concern. Interestingly, though, studies from the Netherlands and Oregon in the USA reported more men than women among assisted deaths.”

16% of death certificates did not register an underlying cause. A previous study of suicides by two right-to-die organizations showed that 25% of those assisted had no fatal illness, instead citing “weariness of life” as a factor. In 2013 the European Court of Human Rights asked Switzerland to clarify whether and under what conditions individuals not suffering from terminal illnesses should have access to help in ending their lives, suggesting that Switzerland should more precisely regulate assisted dying.

Matthias Egger says: “We believe that such new regulation should mandate the anonymous registration of assisted suicides in a dedicated database, including data on patient characteristics and underlying causes, so that suicides assisted by right-to-die associations can be monitored.”

‘Suicide assisted by Right-to-Die Associations: Population based cohort study’ by Nicole Steck, Christoph Junker, Maud Maessen, Thomas Reisch, Marcel Zwahlen, and Matthias Egger

[International Journal of Epidemiology 19 February 2014;](#)
[doi: 10.1093/ije/dyu010.](#)

07.02.2014 13:45

Preventing Mother-to-Child Transmission of HIV in Malawi

The HIV/AIDS and Hepatitis group has received a large grant from the Bill & Melinda Gates Foundation and an NIH Peer Grant.



Image Credit: Jack Zalium and Richard Basset

The group will collaborate with the Malawi Ministry of Health to conduct a mixed-methods study to assess the effectiveness of Option B+, a simplified treatment protocol designed to prevent mother-to-child transmission of HIV. Olivia Keiser is the PI for the Grant from the Gates Foundation. Matthias Egger was a co-applicant for the PEER grant, for which Frank Chimbwandira is the PI.

The quantitative arm of the study will take a naturalistic approach, and use a large sample of routinely collected data and advanced statistical methods to evaluate the way the program works in the real world. The qualitative study will determine why some centers have much better retention others, and establish possible points of intervention in the health care system and in the community, to improve uptake and better retain women with HIV.

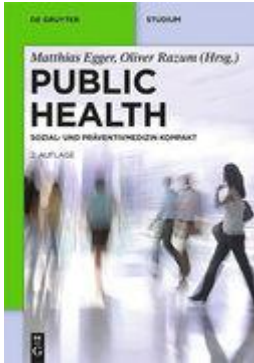
Links:

- [Bill & Melinda Gates Foundation](#)
- [NIH Peer Grant](#)

04.02.2014 16:06

Zweite, aktualisierte Auflage des Lehrbuchs „Public Health - Sozial- und Präventivmedizin kompakt“ erschienen!

Die von den Studierenden als sehr gut bewertete 1. Auflage des Lehrbuchs wurde vollständig aktualisiert und um Inhalte zu den Themen „Evidenzbasierte Medizin“, „Betriebliches Gesundheitsmanagement“ und „Herausforderungen einer alternden Gesellschaft“ ergänzt.



Das praxisbezogene Lehrbuch bietet Studierenden einen leicht verständlichen Einstieg in die verschiedenen Aspekte des Fachs ‚Public Health‘. Neben den grundlegenden Begriffen und Konzepten des Fachs enthält es das relevante Basiswissen aus den Bereichen „Prävention und Gesundheitsförderung“, „Epidemiologie“, „Biostatistik“ und „Gesundheitswesen“. Weitere aktuelle Themen sind „Umweltmedizin“ und „International Health“.

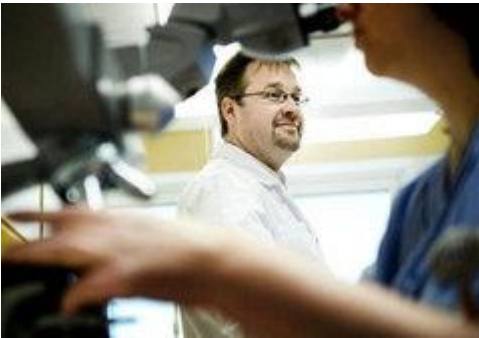
Links:

- <http://www.degruyter.com/books/9783110310733>
- <http://www.public-health-kompakt.de>

04.02.2014 15:39

Magnus Unemo, expert in antimicrobial resistant gonorrhoea in Bern this week

Magnus will speak on “Gonorrhoea Management in the Era of Multidrug Resistance” on Tuesday 4th February 2014; 17:30-18:30; Room D517, Polikliniktrakt 2, Bern University Hospital (Eingang 29), 3010 Bern. As Director of the WHO Collaborating Centre for Gonorrhoea and other STIs, Örebro University Hospital, Sweden.



Magnus is a collaborator on two new projects at ISPM. Look out for news next week about RADAR-Go (Rapid Diagnosis of Antimicrobial Resistant Gonorrhoea) and SystemsX (Exploring response surfaces and synergistic interactions of antibiotic combination treatment for *Neisseria gonorrhoeae*).

More details about Magnus and his work are in the attached [invitation to the talk](#).

CIN3+plus: What impact on cervical cancer will HPV vaccination have?

Krebsforschung Schweiz is funding a research project from Feb 2014 to Jan 2016 to start monitoring the impact that vaccination against human papillomavirus (HPV) will have on cervical cancer and its precursors (grade 3 cervical intraepithelial neoplasia, CIN3). Nicola Low, ISPM Bern, leads the research with co-investigators from the Swiss Federal Office of Public Health, National Institute of Cancer Epidemiology and Research, Luzern Cantonal Hospital and Lausanne and Geneva University Hospitals.



Project summary

Almost all cases of cervical cancer are caused by a viral infection (human papillomavirus, HPV). HPV is transmitted through sexual intercourse; some types of HPV can cause cancer many years later. There are now vaccines that protect against two of the most common cancer-causing HPV types (16/18). Since 2008, Switzerland has had a national programme to offer HPV vaccination to girls aged 11-14 years. It is essential to monitor the effectiveness of vaccination in preventing cancer. Trends in pre-cancerous stages can be used to indicate how effective HPV vaccination will be in preventing future cases of cervical cancer. This project aims to a) describe the distribution of HPV types in cervical pre-cancer and cancer before it has been affected by the HPV vaccination programme and b) examine factors that might affect the reliability of a system for monitoring outcomes of the vaccination programme.

The project will take place in seven locations in Swiss German, French and Italian speaking regions. We will identify women diagnosed with cervical pre-cancer or cancer from laboratory records. We will study biopsy specimens that were used to make the diagnosis and test them for HPV type. We plan to determine HPV type in 200 specimens from the recent past (2013) and 700 from 2014-2015. We will ask women diagnosed from 2014 onwards for permission to collect additional information about factors that might be associated with cervical pre-cancer and cancer. We will compare basic characteristics of women who do, or do not give consent for additional data collection. We will then compare the characteristics of women with cervical pre-cancer and cancer with a random sample of women in the general Swiss population. The benefit of the project is that it provides the information needed to monitor the future effectiveness and fairness of HPV vaccination in Switzerland.

20.01.2014 10:37

5th Swiss Epidemiology Winterschool is in Wengen this week

Students can follow in the tracks of this year's Lauberhorn downhill champion, Swiss skier Patrick Küng, all week.



Here's a [map of Wengen & the location of the course hotels.](#)

And here's the [Wengen Slope report.](#)

The website of the Swiss Epidemiology Winter School can be found [here.](#)