

**Session II | Mittwoch, 28.08.2019, 14:15 - 15:30 Uhr****B1 | Workshop**

Zimmer	<b>TN E0.58   EG   140 Plätze</b>
Thema	<b>Kinderarmut und Ernährung</b>
Vorname   Name   Affiliation	Isabel Zihlmann Fachgruppe Ernährung, Public Health Schweiz
Co-Autor	Katharina Liewald Marainne Honnegger

**Kinderarmut und Ernährung**

In der Schweiz waren im Jahr 2016, gemessen an den Richtlinien der SKOS, 7,5% der ständigen Wohnbevölkerung in Privathaushalten von Einkommensarmut betroffen. Dies entspricht rund 615'000 Personen. Zu den am stärksten betroffenen Gruppen zählten Personen, die alleine oder alleinerziehend mit minderjährigen Kindern lebten, Personen ohne nachobligatorische Ausbildung und Personen in Haushalten ohne Arbeitsmarktteilnahme. 108'000 Kinder und Jugendliche im Alter von 0-17 Jahren sind von Armut betroffen (BFS, 2016). Kinderarmut hat, neben vielen anderen Auswirkungen, auch Einfluss auf den Ernährungszustand der betroffenen Kinder und Jugendlichen. So weisen armutsbetroffene Kinder/Jugendliche häufiger Übergewicht und Karies auf. Sind Familien von Sozialhilfebezügen abhängig, können sich Ernährungsumfang und -qualität insbesondere in der zweiten Monatshälfte verringern, wenn das Geld knapp wird. Armut hat auf diese Weise konkrete Auswirkungen auf die Ernährungsgesundheit von Kindern und Jugendlichen, aber auch auf die Gesundheit der Eltern. Der Workshop untersucht mit Beiträgen und in der Diskussion mit Teilnehmenden und Personen aus Politik, Sozialhilfe und Praxis beispielhaft, was an konkreter Unterstützung für armutsbetroffene Kinder und Eltern gemacht wird oder machbar wäre.

Für den Workshop sind folgende Beiträge geplant:

Auswirkungen von Kinderarmut auf die Ernährung (Einleitung der Moderatorinnen; Isabel Zihlmann, Fachgruppe Ernährung Public Health Schweiz; Katharina Liewald, Schweizerisches Rotes Kreuz)

Was hilft Eltern in prekären Lebensumständen? Aspekte und Bausteine gelingender Elternzusammenarbeit. (Miriam Zbinden, Bundesamt für Sozialversicherungen)

Vulnerable Zielgruppen in der Schweiz erreichen – so geht es. Die neue Website von Migesplus (n.n., Schweizerisches Rotes Kreuz)

Strukturelle Unterstützung – was ist möglich? Diskussion mit Vertreterinnen und Vertretern aus Politik, Sozialhilfe und Praxis

- N.N., Caritas-Markt Zürich
- Nicolas Galladé, Vorsteher Departement Soziales, Stadt Winterthur
- Markus Kaufmann, Schweizerische Konferenz für Sozialhilfe SKOS
- N.N., schritt:weise Winterthur

**B2 | Workshop**

Zimmer	<b>TS 01.40   1. Stock   163 Plätze</b>
Thema	<b>Adolescent &amp; Young Adults Health, Infant &amp; Child Health</b>
Vorname   Name   Affiliation	Daniel Frey Public Health Schweiz
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**Brauchen wir eine nationale Strategie für Kinder-und Jugendgesundheit?**

Die Europa Region der WHO hat eine von allen 53 Mitgliedern verabschiedete Strategie der Kinder-und Jugendgesundheit 2015 - 2020 entwickelt. Wichtige Prinzipien sind unter anderem der Lebensphasenansatz, die intersektorielle Kooperation im Sinne von Health in all Policies und ein Monitoring zur Überprüfung und Weiterentwicklung der Strategie. Rund drei Viertel der Europäischen Staaten haben eine eigene nationale Strategie auf der Grundlage der WHO Strategie der Kinder-und Jugendgesundheit implementiert. Die Schweiz gehört nicht dazu. Im Workshop sollen die Teilnehmenden etwas über die Rolle der Kinder-und Jugendgesundheit in den nationalen Gesundheitsstrategien und deren Weiterentwicklung (Gesundheit 2020, NCD-Strategie, Kantonale Aktionsprogramme) erfahren. Folgende Fragen sollen diskutiert werden: Wie weit decken die Strategien das Gebiet der Kinder-und Jugendgesundheit ab, sind die aktuellen Herausforderungen berücksichtigt, gibt es wesentliche Lücken? Wie sind die Strategien, Programme und Massnahmen koordiniert, gibt es Verbesserungspotential? Wie ist der Transfer von der nationalen auf die kantonale und kommunale Ebene und umgekehrt geregelt? Wie ist die Finanzierung geregelt? Sind die wesentlichen Player involviert? Brauchen wir eine übergeordnete, die ganze Kindheit und Jugend umfassende nationale Strategie?

**B3 | Oral**

Zimmer **TN 02.11 | 2. Stock | 32 Plätze**

Thema **ENVIRONMENTAL, LIFESTYLE & NUTRITION**

Chair **Sabine Rohrmann**

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**to the general population of Switzerland**
**Introduction**

Childhood exposure to tobacco products may influence future smoking habits and poses a threat to children's present and future health. We aimed to describe the smoking behaviour in unselected school-aged children from the canton of Zurich and to study associations between children's self-reported smoking and children reported parental smoking.

**Methods**

Luftibus is a cross-sectional study on the respiratory health of schoolchildren from the canton of Zurich performed between 2013-16. Children were asked about cigarette, shisha and e-cigarette or e-shisha smoking frequency and if their parents smoke, among other questions and their age was recorded. Outcomes were prevalence and pattern (frequency and type of smoking device) of children's self-reported smoking by age groups. We investigated if self-reported smoking ever and frequent smoking ( $\geq 1x/week$ ) in children aged  $\geq 14$  years was associated with parental smoking using logistic regression.

**Results**

3634 children were interviewed, with median age of 12 years (IQR 9-14, range 6-17). 726 (20%) children reported to have smoked cigarettes, shisha or e-cigarette or e-shisha and that was more common with increasing age, being reported by 15 (2%), 224 (14%) and 487 (47%) of the children aged 6-9, 10-13 and 14-17 years respectively. More children had tried shisha (465; 13%) and e-cigarettes or e-shisha (468; 13%) than traditional cigarettes (364; 10%). Frequent smoking was reported by 53 children aged  $\geq 14$  years (5%), most of whom smoked cigarettes. At least one parent of 1287 children (35%) smoked. In children aged  $\geq 14$  years, reported smoking ever (OR 1.8, 95%CI 1.4-2.3) and frequent smoking (OR 2, 95%CI 1.2-3.6) were both associated with parental smoking and the association was stronger with increasing age.

**Conclusions**

One in five children reported having smoked. Shisha and e-cigarettes or e-shisha smoking was overall more popular than traditional cigarettes, but frequent smoking was reported more often for cigarettes. Parental smoking is a strong risk factor for children active smoking. Smoking preventive strategies targeting schoolchildren and their families is a public health priority in Switzerland.

**Funding**

Lunge Zürich. SNSF (320030\_162628)

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### **Children's exposure to ionizing radiation: results from a nationwide survey in Switzerland**

Children's exposure to ionizing radiation: results from a nationwide survey in Switzerland

Antonella Mazzei<sup>1</sup>, Christophe Folly<sup>1</sup>, Astrid Coste<sup>1</sup>, Ben Spycher<sup>1</sup>

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#### Background:

Ionizing radiation in medium to high doses is known to cause cancers and children are particularly susceptible. There is greater uncertainty about the childhood cancer risk with respect to low dose exposures (<100 mSv) from CT scans and natural background radiation. Individual exposure to natural background radiation cannot be accurately measured and is modeled with great uncertainties; thus, previous studies have produced conflicting results. These inaccuracies and uncertainties are due to the extrapolation of individual radiation levels based on limited radiation measurements at different locations. Information about the building material, residential history, habits, and other factors are expected to improve the individual radiation exposure estimates.

#### Objective:

To estimate the average effective annual dose of ionizing radiation received by children in Switzerland from different radiation sources.

#### Methods:

We will conduct a cross-sectional survey of Swiss resident children aged <15 years assessing exposure to common sources of gamma radiation, radon, and medical diagnostic radiology. A parental self-administered questionnaire will be sent in March 2019 to the families of 8,000 randomly sampled children. The questionnaire includes items addressing residential history, flight travel, time spent indoors/outdoors across the seasons (longitudinal survey design), building materials of the dwelling, medical diagnostic radiology, and consumption of foods known to have higher content of radionuclides. Individual effective doses will be estimated using survey results and secondary data from the literature. We will also investigate individual UV exposure (sun light exposure and protection behavior).

#### Expected results:

Based on the pilot study, we expect a response rate of approximately 35% with representation of all big geographic regions and age groups. Item non-response is expected to be less than 10% for most questions. Key questions as residential history are expected to be virtually complete.

#### Significance:

This study will be the first population-based nationwide survey in Switzerland on exposure to ionizing radiation and UV in children. The obtained information will allow us to validate geographical exposure models developed in Switzerland and thus improve the exposure assessment in epidemiological studies that investigate associations between childhood cancer risks and natural background radiation.

The full survey will be presented at the SPHC 2019.

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### **Investigation of processed meat consumption based on the National Nutritional Survey menuCH and examination of CRC ecological data for colorectal cancer incidence in Switzerland**

Processed meat (PM) has an important role in diet of the Swiss population, but is increasingly regarded as a food group of concern due to epidemiological evidence for its association with colorectal cancer (CRC) and other chronic diseases. Data on CRC incidence for men and women and by region is available in Switzerland, but cannot be linked with PM intake.

This secondary analysis aimed to describe PM consumption in Switzerland, using data from the National Nutritional Survey menuCH, to investigate associations between PM intake and sociodemographic and lifestyle factors, and to examine CRC incidence in Switzerland for any similar regional patterns to PM consumption.

Intakes of total PM and of categories ham, bacon, sausage and other PM types were described by means and standard errors (SEM). Multiple regression analysis was used to investigate associations between meat intake (total meat and PM g/1000 kcal assessed separately) and sociodemographic and lifestyle factors including sex, language-speaking region, age-category, nationality, education, gross household income, household status, smoking status, overall health status (self-reported), and currently following a weight-loss diet. Data were weighted for age, sex, marital status, major area of Switzerland, nationality and household size, and for consumption data, also season and weekday.

Results show, PM was consumed by approximately 70% of the population with mean total intake of 42.7 (SEM 1.2 g/d). Sausage intake was highest with 16.8 g/day, followed by ham, other PM and bacon, 12.4, 10.6, and 2.0 g/day, respectively. Sex was significantly associated with total meat and PM intake; women consumed 10.1 g/1000 kcal less total meat [95% CI: -13.60; -6.64], and 4.70 g /1000 kcal less PM [95% CI: -6.73; -2.68] than men. For both total meat and PM intake, positive associations were observed for overweight, obesity and current smoking, and negative associations for tertiary education and also for following a diet (with PM intake). The ecological data for CRC incidence revealed much higher rates for men than women, over 24 years; but no particular pattern was observed in the data shown by language region.

This study describes, for the first time, intake of total and different PM types, based on national representative data. Positive associations between PM intake and smoking and obesity merit careful monitoring. A more regular data collection is needed by methods enabling separate quantification of meat and PM.

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## The warm summer 2018: less heat-related deaths due to public health policy measures?

### Background

The increasing heat stress is one of Switzerland's priority climate-related risks. Previous heat waves in 2003 and 2015 have been associated with short-term increases in mortality. Consequently, many cantons have implemented public health measures to prevent heat-related mortality and to raise the awareness of heat-related health risks. The aim of this study was to assess the impact of the summer 2018 on mortality in Switzerland which ranks as the third warmest summer since the beginning of temperature observation.

### Methods

We collected information on active public health interventions to prevent adverse heat-related health effects during summer 2018 from each canton. Questionnaires have been filled out by the cantonal health departments between January and February 2019. Excess mortality during summer 2015 (June-August) was estimated based on the difference between observed and expected number deaths. The latter was estimated for each day and for different strata (age group, gender, geographic region) by applying strata-specific quasi-Poisson regression models fitted to the daily counts of deaths of the ten previous years.

### Results

Preliminary analysis for the whole summer 2018 (June to August) do not indicate substantial excess mortality in Switzerland. However, a peak in daily number of deaths (up to 200 deaths) similar to previous heat waves was observed during the first week in August 2018 coinciding with high night-time temperatures  $\geq 20^{\circ}\text{C}$ . Increases in daily mortality were mainly evident in the German speaking area of Switzerland. In Ticino and in the area around Lake Geneva, no such peaks were observed. Both Italian and French speaking cantons have activated various measures coordinated by cantonal heat actions plans to protect the health of the population in August 2018.

### Conclusions

Heat-related mortality during summer 2018 was lower than in 2015 and 2003. Absence of excess deaths in Ticino and Lake Geneva, the hottest areas in August 2018, may suggest that heat-related mortality is preventable with adequate policy measures. Additionally, the relative cool nights during summer 2018 may have prevented excess deaths.

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## **Fish consumption is associated with school performance in children in a non-linear fashion**

### Introduction

How the long chain fatty acids DHA and EPA in the diet permitted human brain evolution, and how much our brains need today to function optimally is still a hot topic for debate. DHA and EPA are considered as semi-essential because only insufficient amounts can be produced from other nutrients, such that they must be ingested with the diet. The Dietary Reference Intake (DRI) of DHA and EPA, or of food containing these fatty acids, has not yet been established, but consumption of fish is routinely recommended. Here we analyze data from a large cohort study to assess the association between fish consumption and scholastic performance in children and adolescents.

### Methods

We analyzed data from the German cohort of children and adolescent health KiGGS, which was conducted 2003-2006 and included more than 17,000 children. We applied ordered logistic regressions to test for associations between fish intake and school performance. We also included potential confounders in our models.

### Results

We found a statistically significant association between an intake of 8 g of fish per day and last grades in both German and mathematics. For the outcome German, higher levels of fish intake also had a positive effect. These relationships were not linear but tended to decrease again with higher intakes of fish.

### Discussion

Our result confirms previous reports of a positive association between fish intake and scholastic performance. Interestingly, this relationship was not linear but tended to decrease again in the highest categories of fish intake. We hypothesize that mercury or other pollutants in the fish could be detrimental at high levels. We recommend a minimal intake of 8 g fish per day for all children. Upper limits have yet to be established.



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## Ernährung gesunder Säuglinge und Kleinkinder

### Einleitung

Die Ernährung des Säuglings und Kleinkindes spielt eine wichtige Rolle für dessen Entwicklung und langfristige Gesundheit. Essgewohnheiten, die in frühen Jahren angeeignet werden, werden tendenziell auch mit zunehmendem Alter beibehalten. Bisher gab es keine einheitlichen, umfassenden und schweizweit gültigen Empfehlungen für die Ernährung gesunder Säuglinge und Kleinkinder. Ziel des Projekts war die Erarbeitung dieser Empfehlungen im Rahmen der Schweizer Ernährungsstrategie, unter Einbezug relevanter Fachorganisationen.

### Methoden

Basis der Empfehlungen bildet der wissenschaftliche Bericht der Schweizerischen Ernährungskommission EEK «Ernährung in den ersten 1000 Lebenstagen» (2015). Auf dessen Grundlage wurden leicht verständliche Empfehlungen in Form von drei sich ergänzenden Kommunikationsmitteln erarbeitet. Dies soll die Erreichbarkeit der Zielgruppe Eltern erhöhen.

### Ergebnisse

Eine umfassende, dreisprachige Broschüre und ein Faltblatt in neun Sprachen als Druckversion sowie eine dreisprachige Webseite [www.kinderandentisch.ch](http://www.kinderandentisch.ch) wurden zwischen 2017 und 2018 erarbeitet und publiziert. Diese Materialien richten sich an Eltern und weitere Bezugspersonen von Säuglingen und Kleinkindern bis zum Alter von drei Jahren. Thematisch werden die wichtigsten Fragen in Zusammenhang mit der Ernährung von Säuglingen und Kleinkindern aufgegriffen: Stilldauer, Nähren mit der Babyflasche, Einführung der Beikost, Einnahme von Supplementen, Vorbeugen von Allergien, Essen in Gemeinschaft, Vorbildfunktion der Familie.

### Schlussfolgerungen

Der Einbezug von relevanten Fachorganisationen bei der Erarbeitung von Inhalten ist enorm wichtig. Nur so kann gewährleistet werden, dass Fachpersonen gemeinsam hinter den Empfehlungen stehen und diese an die Zielgruppen kommuniziert werden. Gleichzeitig gibt dies den Eltern die Gewissheit, dass sie sich auf diese Empfehlungen stützen können. Die grosse Nachfrage nach den Informationsmaterialien zeigt den Bedarf der Eltern an verlässlichen Informationen zur Ernährung von Säuglingen und Kleinkindern. Dank der Webseite können neue oder aktualisierte Empfehlungen relativ zeitnah überarbeitet und publiziert werden.



**B4 | Oral**

Zimmer	<b>TN 02.19   2. Stock   32 Plätze</b>
Thema	<b>PHYSICAL ACTIVITY &amp; PREVENTION</b>
Chair	<b>Sonja Kahlmeier</b>
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**Association of objectively measured and perceived environment with physical activity and cycling**
**Purpose**

In the population based SOPHYA study (Swiss children's Objectively measured PHYSical Activity) we tested whether objectively assessed neighbourhood characteristics are associated with moderate-to vigorous physical activity (MVPA) and cycling in Swiss children and adolescents and assessed the mediating role of the parental perception.

**Methods**

The cross-sectional analyses were based on data of 1306 participants aged 6-16 years of the population-based SOPHYA study. MVPA was measured by accelerometry; time spent cycling and the perceived environment score (based on road safety, aesthetics and incivilities, personal safety and access to parks and playgrounds) were assessed by questionnaire. Objective environmental as the parameters at the residential address were GIS derived. In all analyses, personal, social and environmental factors were considered.

**Results**

On average, children and adolescents spent about 78.5 minutes in MVPA and cycled for about 1 hour/week. Accelerometer based MVPA decreased with age. Boys (88.4 min/day) and children living in the German speaking part of the country (80.6 min/day) accumulated more MVPA than girls (68.0 min/day) and peers from the other language regions (French: 75.9 min/day; Italian 70.0 Min/day). MVPA showed significant positive associations with perceived personal safety (0.01(0.00; 0.01) and perceived access to green spaces (0.02 (0.01; 0.04) but not with respective objective parameters. With regard to the association of the objective environment with MVPA, a noteworthy interaction between walkability index and socioeconomic position (SEP) of the neighbourhood was found. Walkability was positively associated with MVPA in low SEP areas 7.9 (-1.8; 17.8), but negatively in high SEP areas (-4.5 (-11.9; 2.9). Objectively assessed main street density and shorter distance to the next public transport were associated with less cycling in adolescents. Parents' perceptions did not mediate the observed associations of the objectively assessed environment with MVPA and cycling.

**Conclusion**

Associations between the environment and physical activity differ by domain. Such differences should be considered when introducing interventions. For spatial planning, a high walkability in low SEP areas and safe routes to school for cyclists are recommended. As parental perceptions were independently associated with MVPA and to a lesser degree with cycling, additional efforts should be aimed at objectifying parental sense of security.

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### **Physical Activity and Screen Time in Children after Childhood Cancer – A Report from the Swiss Childhood Cancer Survivor Study**

#### **Background/Purpose:**

A healthy lifestyle is important to reduce late effects in childhood cancer survivors (CCS). We described physical activity and screen times in a nationwide study of young CCS in Switzerland.

#### **Methods:**

As part of the Swiss Childhood Cancer Survivor Study, we sent questionnaires to parents of all Swiss resident  $\geq 5$  year-survivors diagnosed 1995–2010, aged 5–15 years at study. We defined adherence to physical activity recommendations as  $\geq 7$  hours/week (World Health Organization) and screen time recommendations as  $\leq 2$  hours/day (American Academy of Pediatrics). A multivariable logistic regression model was used to assess characteristics associated with physical activity and screen time adherence.

#### **Results:**

This study included 766 CCS (median [interquartile range/IQR] age at diagnosis 2.8 [1.4–5.0] years; median [IQR] age at study 12.5 [10.0–14.3] years; 56% male). 55% of children adhered to physical activity (median [IQR] 7.3 [4.8–10.0] hours/week) and 68% to screen time recommendations (median [IQR] 1.4 [0.8–2.0] hours/day). Compulsory school sport and walking or cycling to school contributed to more than half of the total physical activity time. CCS were physically less active when living in the French/Italian versus the German speaking region of Switzerland (OR 0.6, 95%CI 0.4–0.9;  $p=0.005$ ), had a relapse (OR 0.6, 95%CI 0.4–0.9;  $p=0.03$ ), or musculoskeletal/neurological late effects (OR 0.7, 95%CI 0.5–0.9;  $p=0.02$ ). High screen times were associated with male sex (OR 0.6, 95%CI 0.4–0.9;  $p=0.006$ ), lower parental education (OR 0.4, 95%CI 0.2–0.8;  $P=0.01$ ), and migration background (OR 0.6, 95%CI 0.4–0.9;  $P=0.02$ ). Brain tumor survivors had lower screen times (OR 2.2, 95%CI 1.1–4.7;  $P=0.04$ ).

#### **Conclusions:**

Swiss CCS are not very active. Pediatric oncologists should raise awareness of the importance of being physically active to prevent late effects in CCS. Community policies need to preserve school sports and assure safe ways to school.

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### **The SOPHYA cohort on objectively measured physical activity trajectories in Swiss youth**

#### Background – SOPHYA at baseline

SOPHYA is the first Swiss-wide population-based study describing objectively measured physical activity (PA) in the young. At baseline in 2014/15 1230 children and adolescents aged 6 to 16 years participated and wore accelerometer devices for 7 days. The data obtained allowed studying the association of PA with social and environmental characteristics of the children including exposures modeled to their residential address. The simultaneous assessment of objectively measured PA levels in one or both parents allowed analyzing the influence of the familial environment. Finally the PA levels were linked to health outcomes.

#### Objective and Methods – SOPHYA follow-up and sample enrichment

By transforming the SOPHYA study into a cohort we aim at studying the longitudinal trajectory of PA from childhood to adolescence and from adolescence to young adulthood and the association of these trajectories with baseline characteristics. The integration of remote blood sampling will allow studying DNA methylome features associated with chronic PA patterns.

In 2018/19, SOPHYA participants with valid accelerometry data at baseline will be reassessed.

Consistent with the study design at baseline, the first participant contact will be a telephone interview about the sport behavior. Next, accelerometers for the child and the parents will be mailed to consenting families. A questionnaire on health, lifestyle, well-being, injuries and perceptions of the local neighborhood and a time-activity diary will be filled in on paper. Participants will be asked to collect a dried bloodspot from a finger prick. Specific objective environmental data (e.g. built environment or social environment) will be modeled to the children's address.

In 2019/20, the SOPHYA study will be enriched with a new sample of 6 to 10 year olds providing information about temporal trends. They will be randomly sampled from national registry data, consistent with the sampling at baseline. The new SOPHYA participants will undergo the baseline assessment and additional components added at follow-up as described above.

#### Relevance of the SOPHYA cohort

The SOPHYA cohort will facilitate comparing PA patterns in the young across regions in Switzerland and with international data. The time-resolved analysis of factors associated with long-term activity patterns in SOPHYA is of utility for health-in-all-policies aiming at preventing the incidence and mortality from non-communicable diseases.



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## **Spiele draussen als gesundheitsfördernde Massnahme bei Kindern Ein Bericht aus Praxis und Forschung**

### Hintergrund:

Das Spielen draussen trägt wesentlich zur Entwicklung und Gesundheit von Kindern bei. Nebst dem Erlernen von sozialen und kognitiven Fertigkeiten, wirkt sich das Spielen draussen auch positiv auf die körperliche Aktivität und die psychische Gesundheit von Kindern aus. Öffentliche Räume, wie Spielplätze, sind Orte wo Kinder und Jugendliche draussen spielen und soziale Interaktion und Teilhabe am gesellschaftlichen Leben erfahren. Jedoch gibt es Kinder, die keinen oder nur erschwerten Zugang zu Spielplätzen haben, wie zum Beispiel Kinder mit herausforderndem Lebenskontext oder mit Behinderungen. Sie laufen Gefahr wichtige Entwicklungsschritte zu verpassen und von der Teilhabe am gesellschaftlichen Leben ausgeschlossen zu sein und dadurch negative Auswirkungen auf Gesundheit, Zufriedenheit im Leben und die Integration in der Gesellschaft zu erleben.

### Ziel:

In der Präsentation wird das Spielen draussen als gesundheitsfördernde Massnahme zur Sicherstellung von Gesundheit, Teilhabe und allgemeinem Erfolg im zukünftigen Erwachsenenalter für alle Kinder identifiziert und anhand von Beispielen illustriert. Es werden Möglichkeiten beschrieben, wie öffentliche Spielplätze gestaltet werden können, so dass sie für alle Kinder zugänglich und nutzbar sind.

### Methoden:

Anhand vier ausgewählter Spielplätze aus der Schweiz, wird verdeutlicht, wie das Spielen auf dem Spielplatz Kinder und ihre Familien, ungeachtet von Herkunft und vorhandener Schwierigkeiten, verbindet und Spielplätze als gesundheitsfördernde Räume genutzt werden können. Einzelne Stimmen und Perspektiven der Kinder, die im Rahmen eines Forschungsprojekts der Forschungsstelle Ergotherapie der ZHAW interviewt wurden, werden präsentiert. Der Nutzen einer Schweizer «play policy», wie es sie bereits in verschiedenen europäischen Ländern gibt, wird dargelegt und auf nationale Projekte übertragen.

### Resultate:

Die Resultate leisten einen Beitrag zur Diskussion, wie Umwelteinflüsse die Gesundheit und das Wohlbefinden von Kindern beeinflussen können. Mit dem Projekt sollen Lücken in der Gesundheitsversorgung aufgezeigt und Optimierungspotentiale exemplarisch dargestellt werden. Ein Anliegen ist es, die Politik, Behörden und Gesundheitsfachpersonen für dieses wichtige Thema zu sensibilisieren, damit alle Kinder ihr Recht auf Spiel wahrnehmen können.

### Zusammenfassung:

Die Gestaltung von Spielplätzen hat einen entscheidenden Einfluss auf die Gesundheit von Kindern und ihrer Teilhabe in der Gesellschaft.

**B5 | Oral**

Zimmer **TN 02.29 | 2. Stock | 32 Plätze**

Thema **HEALTH PROMOTION AND VACCINATION**

Chair **Ursula Meidert**

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**Impact of nationality on vaccination coverage of children in Switzerland, 2005–2016**
**Introduction:**

This study explores the effect of nationality on vaccination coverage of the childhood preventable diseases (pertussis, measles, poliomyelitis, hepatitis B, HPV and Haemophilus influenzae vaccine type B).

**Methods:** Vaccination data from the Swiss National Vaccination Coverage Survey (SNVCS) 2005-2016 were analysed. The SNVCS is a cross-sectional survey evaluating vaccination coverage of 2, 8 and 16-year-old children, residing in Switzerland. Univariate and multivariable logistic regression analyses and decision trees setup were performed. Nationality was defined as Swiss and non-Swiss; covariates included were linguistic regions (Italian, German, French and Rhaeto-Romanic), degree of urbanisation (rural and urban), age group (2Y, 8Y and 16Y) and period of data collection (2005-07, 2008-10, 2011-13, 2014-16). Cases with missing nationalities were not included in the evaluation.

**Results:**

92,478 children were included in the analysis. The results show that nationality can explain part of the variability in vaccination coverage when analysed in aggregation with the covariates detailed above. The overall full immunization coverage 2005-16 for Swiss children was 70% for 2Y, 66% for 8Y and 61% for 16Y; it was 74%, 68% and 56.5%, respectively, for the non-Swiss. There was a significant association ( $p < 0.001$ ) between vaccination coverage and nationality regarding hepatitis B, pertussis, measles and HPV vaccination for different age groups. Specifically, for the first shot of pertussis vaccination for the 2Y and 8Y, we observe that non-Swiss children have a coverage of 99% whereas the Swiss have a coverage of 93%. Non-Swiss children from all 3 age groups exhibit higher uptake for the 1st and 2nd doses of measles and Hepatitis B vaccinations. For HPV vaccination during survey periods 2011-13 and 2014-16, Swiss girls were better vaccinated than their non-Swiss counterparts. However, in the multivariable logistic regression, there was no longer a significant difference (OR= 1.055, 95% CI= 0.851 to 1.308).

**Conclusion:**

The impact of nationality on vaccination coverage varies, depending on the vaccination, the number of doses and the age group. However, in general we do see that non-Swiss children are better vaccinated as toddlers than Swiss, while it was the opposite for the adolescents. Measures to improve coverage deserve further investigation.

**KEYWORDS:** vaccination coverage, population, nationality

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### **Unscheduled vaccine co-administration and non-adherence to the paediatric immunisation schedule in England**

#### **Background:**

Paediatric vaccination schedules are designed to achieve optimal protection against vaccine preventable diseases early in life. However, actual vaccine administration may not happen according to schedule for various reasons. This may lead to delays and unscheduled co-administrations of vaccines, potentially leading to interference and alter their respective safety profiles. While efficacy and safety outcomes for scheduled vaccine co-administrations are assessed in pre-licensure clinical trials, data on the extent and impact of unscheduled vaccine co-administrations post-licensure are scarce.

#### **Objectives:**

The main objective of this study was to calculate the prevalence of unscheduled vaccine co-administrations in children in England between 2003 and 2015. The secondary objectives were to quantify non-adherence to the UK paediatric immunisation schedule among vaccinated children in England in the same period and to identify risk factors for unscheduled co-administration and non-adherence.

#### **Methods:**

Immunisation data from English children born between 1 April 2003 and 31 January 2011 was extracted from the Royal College of General Practitioners (RCGP) Research and Surveillance Centre (RSC) database. We calculated the prevalence among vaccinated children of unscheduled co-administrations on the same day and non-adherence to the UK immunisation schedule for nine childhood vaccines scheduled in the first 40 months of life. Pearson's chi-square test was used to analyse the significance of differences in prevalence between years of immunisation, regions, and deprivation quintiles.

#### **Findings:**

Unscheduled co-administration of DTaP/IPV/Hib dose 1 with MMR dose 2 occurred in more than 8% of immunisations with either vaccine and unscheduled co-administration of PCV dose 1 with MMR dose 1 occurred in more than 5% of immunisations with either vaccine. These high prevalences coincide with a high prevalence of delayed immunisations for one of the co-administered vaccines, specifically DTaP/IPV/Hib dose 1 and PCV dose 1. Non-adherence to the immunisation schedule for these vaccines as well as co-administration of PCV dose 1 with MMR dose 1 is associated with the year of immunisation, region, and deprivation while co-administration of DTaP/IPV/Hib dose 1 with MMR dose 2 is associated with the year of immunisation and region.

#### **Conclusion:**

Unscheduled co-administration of vaccines occurs and coincides with non-adherence patterns for routine paediatric vaccines.

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### **Promotion aux urgences de la santé avec une tablette électronique: une étude observationnelle**

#### Introduction :

En 2016, il y a eu 1.7 million de consultations dans les services d'urgences (SU) suisses, dont une part croissante relève de la médecine de 1er recours. La promotion de la santé dans les SU serait donc souhaitable mais la disponibilité des urgentistes y est actuellement insuffisante.

But de l'étude: évaluer la pertinence de promouvoir la santé grâce à des tablettes numériques durant le temps passé pour une consultation urgente dans le SU du CHUV.

Matériel et Méthode : étude observationnelle menée sur 2 mois consécutifs en 2018. Sur une tablette numérique (TN): choix de 9 questionnaires de santé validés avec retour personnalisé à tout patient  $\geq 18$  ans capable de discernement, présent durant les horaires de l'investigateur (horaire de 3x8h tournant sur les 24h et 7j/7j). Bilans de santé et recommandations remis sous forme de documents aux patients et/ou envoyés par email pour en faciliter le partage avec le médecin traitant.

#### Résultats :

500 patients approchés, 317 (63%) participants. Durée médiane de consultation: 5.24h (Espace InterQuartile ou EIQ: 3.7;7.6). Âge moyen  $44 \pm 17$ (SD) ans, femmes: 45%; 96% suisses ; 54% professionnellement actifs et 20% rentiers; 83% avec médecin traitant; médiane de 4 tests/patient (EIQ:2;9) ; choix des questionnaires: activité physique 71% dont 55% faisant  $\leq 2x/sem.$  30min d'activité modérée; consommation alcool 59% ; tabac 59% dont 69% souhaitant arrêter; diabète 59% dont 59% acceptant une glycémie révélant un cas de diabète inaugural; statut vaccinal 57% dont 24% non à jour; cancer colique 54% dont 39%  $\geq 50$  ans jamais dépistés et 14% dépistés  $\geq 10$  ans auparavant; VIH 50% dont 40% acceptant un test rapide mais sans test réactif; violence interpersonnel 46% dont 21% victimes de violence verbale et/ou physique, dont 10% souhaitant en parler avec l'urgentiste; abus de substances 45%.

#### Discussion :

Durant le temps d'attente au SU, une offre de dépistage et de conseils de santé était acceptée par la majorité des patients, dont 50% choisissaient au moins 4 domaines. Les questionnaires ont révélé de nombreuses opportunités de modification des comportements dans une population jeune et active, même si la majorité déclarait avoir un médecin traitant. Nos résultats suggèrent donc qu'une offre de dépistage par TN permettrait aux SU d'avoir un rôle complémentaire dans la promotion de la santé en Suisse. Toutefois, des études d'impact sur la santé d'une telle intervention sont nécessaires avant d'en recommander l'adoption par les SU.

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### Application of the eHealth Literacy Scale (eHEALS) in a sample of Swiss parents

#### Background:

The eHealth Literacy Scale (eHEALS) is a widely applied instrument to assess eHealth literacy (Norman and Skinner 2006). The original English eHEALS, a one-factor instrument, was translated and tested in diverse populations with conflicting results on the factor structure. The study “Digital health counsellor” (DIGE) applied eHEALS in a study on parents’ information seeking behaviour with regard to child health. As eHEALS has not been validated in parents of infants, first, the instrument’s factor structure was assessed, and, second, factors associated with eHEALS were analysed.

**Methods:** A random sample of parents in the Kanton of Zürich with children aged 0 - 2.5 years was surveyed about their utilisation of digital media, socio-demographic characteristics, child and parental health and their eHealth literacy (eHEALS). Parents opted for an online or a paper version. Classical test theory (CTT) and modern item response theory (IRT) procedures were applied to examine the factor structure of the German eHEALS, and unadjusted and adjusted analyses run to investigate factors associated with eHealth literacy.

#### Results:

Participation rate was 30% (N=770). After data cleaning N=388 online- and N=315 paper participants remained: 662 mothers and 78 fathers, mean age 35.7 (sd 4.3), children’s mean age 14.8 months (sd. 7.1).

The internal consistency of the eHEALS was high for single items (Cronbach’s alpha: 0.89 - 0.91) and total scale (0.91). Although CTT analyses suggested a two-factor structure, IRT procedure showed that most variance was represented by one broad factor and subscales lacked reliability.

Regression analyses show that parents with high education ( $p=0.02$ ) and parents’ highly using digital media for their child’s general health and development ( $p<0.01$ ) significantly score higher on eHEALS sum score, whereas there is no effect for income and internet use of parents for own health questions. This is also the case when adjusting for gender, nationality and parity.

#### Conclusions:

The analyses imply that eHEALS total sum score can safely be used in parental surveys, instead of two or three subscales as proposed by some studies. Higher eHealth literacy is associated with higher education, indicating a digital divide. Increasing digital information and parents’ high information need make the promotion of parental eHealth literacy across all socio-economic levels a public health objective.



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**Determinants of childhood and HPV vaccine hesitancy in Switzerland - preliminary results from a quantitative survey**



Vorname | Name | Affiliation

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Irene Abderhalden

**«Das habe ich noch nie vorher versucht, also bin ich völlig sicher, dass ich es schaffe!  
Selbstwirksamkeit - eine zentrale Ressource für die (psychische) Gesundheit. »**

Menschen reflektieren, schon bevor sie Handlungen ausführen, ob ihre Kompetenzen für das Erreichen eines Zieles ausreichend sind und ob das zur Bewältigung notwendige Verhalten geleistet werden kann. Für diese Kompetenzeinschätzung hat sich der Begriff Selbstwirksamkeit, oder genauer Selbstwirksamkeitserwartung, etabliert. Die Erwartung, ob eigene Handlungen ‚Wirksamkeit‘ demonstrieren, also Auswirkung haben oder nicht, steuert schon im Vorfeld die Auswahl von und das Herangehen an Situationen. Selbstwirksamkeitserwartungen sind Grundlage für einen zuversichtlichen, ausdauernden und kreativen Umgang mit Anforderungen. Diese Überzeugung respektive selbsterfüllende Prophezeiung lässt Personen jeglichen Alters aktiv werden.

Eng verzahnt ist der Begriff Selbstwirksamkeit mit dem Konzept der Lebenskompetenzen, das bereits 1994 von der Weltgesundheitsorganisation (WHO) definiert wurde. Der Ursprung der Ausbildung von Selbstwirksamkeit und grundlegenden Lebenskompetenzen liegt in der frühen Kindheit: Kinder, denen Selbstwirksamkeit zugeschrieben wird, sind zuversichtlich, haben eine positive Selbsteinschätzung, Vertrauen in sich selbst und demnach in ihre eigenen Fähigkeiten. Entscheidend für die Praxis ist, dass Selbstwirksamkeit sowohl direkt als auch indirekt – über die gezielte Förderung von Lebenskompetenzen – gestärkt und in allen Lebensphasen ausgebaut und erweitert werden kann.

In dieser «oral presentation» werden Ebene der Selbstwirksamkeit und Programm- und Projektbeispiele zur Förderung von allgemeinen Lebenskompetenzen und insbesondere der Selbstwirksamkeit – als ein besonders erfolgreicher Ansatz der Gesundheitsförderung und Prävention – in unterschiedlichen Settings beleuchtet. Im Fokus stehen dabei die besonders sensiblen Lebensphasen Kleinkindalter, Kindheit und Jugend.

## B6 | Workshop

Zimmer	<b>TS 01.07   1. Stock   50 Plätze</b>
Thema	<b>How to prevent excessive substance use in adolescents and young adults in primary care: successes and challenges in research</b>
Vorname   Name   Affiliation	Barbara Broers Geneva University Hospitals
Co-Autor	Prof Dagmar Haller-Hester Dr Eva Pfarwaller Jennifer Hasselgard-Rowe

### Addiction, Adolescent & Young Adults Health

Excessive alcohol, cannabis and other substance use in adolescence affects short- and long-term physical and mental health and contributes extensively to lifelong morbidity and premature mortality. Most young people (i.e. people in the age range from 10 to 24 years, as defined by the WHO) use primary care services, and there is a high prevalence of excessive substance use in this population. Thus, primary care physicians are ideally placed to address substance use in young people. Physicians' associations therefore recommend opportunistic screening and brief interventions addressing substance use at any outpatient care visit in this age group.

The study of the effectiveness of such public health interventions is crucial; research should be undertaken in primary care in a "real-life" context. However, conducting research in primary care is more challenging than research in specialized, hospital-based settings, especially regarding patient recruitment and intervention procedures.

The objective of this workshop is to discuss these challenges and their implications for practice and research. We will present recent research projects on this topic:

Jennifer Hasselgard-Rowe (Institute of Global Health, University of Geneva) will focus on a systematic review of the risk and protective factors for binge drinking among young people and the definitions and measurements of binge drinking.

Eva Pfarwaller (Primary Care Unit, Faculty of medicine, University of Geneva) will present two studies (PRISM-Ado and YP-HEALTH Pilot) addressing excessive substance use in youth 15 to 24 years old in primary care practices in the canton of Geneva, focusing on practical aspects of conducting a randomized controlled trial in primary care practices.

Barbara Broers (Division for Primary Care, Geneva University Hospitals) will focus on a study in which patients (16-24 years) who presented to the emergency department with acute alcohol intoxication were invited by letter to consult with their family doctor, who was trained in brief intervention.

In the public discussion, we will address the common points of these research studies, their challenges and implications, and possible solutions. We will welcome members of the public sharing their relevant experiences.

**B7 | Workshop**

Zimmer	<b>TS 02.44   2. Stock   90 Plätze</b>
Thema	<b>A Public Health Perspective on Children and Adolescents with ADHD: What are the hot topics?</b>
Vorname   Name   Affiliation	Frank Wieber ZHAW, Institute for Health Sciences
Co-Autor	Michael von Rhein Sandra Hotz

**A Public Health Perspective on Children and Adolescents with ADHD: What are the hot topics?**

ADHD is a major public health problem with a broad range of negative outcomes for the affected individuals and a serious burden to families and society. In this workshop, we will look at the status quo and want to jointly discuss and prioritize areas that require action. We want to focus on information that can be used for public health prevention and intervention strategies to support children's health and development. As background, three short inputs will be provided.

PD Dr. med. Michael von Rhein will give an overview of the present state of the diagnosis, treatment and needs for action from a pediatric perspective. He will present data from a 2018 survey of pediatricians on the actual practice concerning the assessment and treatment of ADHD in Switzerland and the respective challenges on an individual as well as on a health service level.

Prof. Dr. Frank Wieber will present new developments in the (digital) technologies and investigate their potential to improve the appropriate diagnoses and treatment of ADHD. He will look at methods such as EEG, fMRI, eye-tracking, digital pens, accelerometer or neuro-feedback and address the actual capability and potential of these methods for use as screening or diagnostic tools or methods to be used in interventions.

PD Dr. Sandra Hotz will take a children's rights perspective that emphasizes the participation of the child and the cooperation of all the relevant actors, ranging from parents and teachers to pediatricians, child and adolescent psychologists, psychiatrists to occupational therapists. She will present recommendations from the guideline on how to deal with ADHD in the decision-making process that was developed under her lead in an interprofessional research project on ADHD.