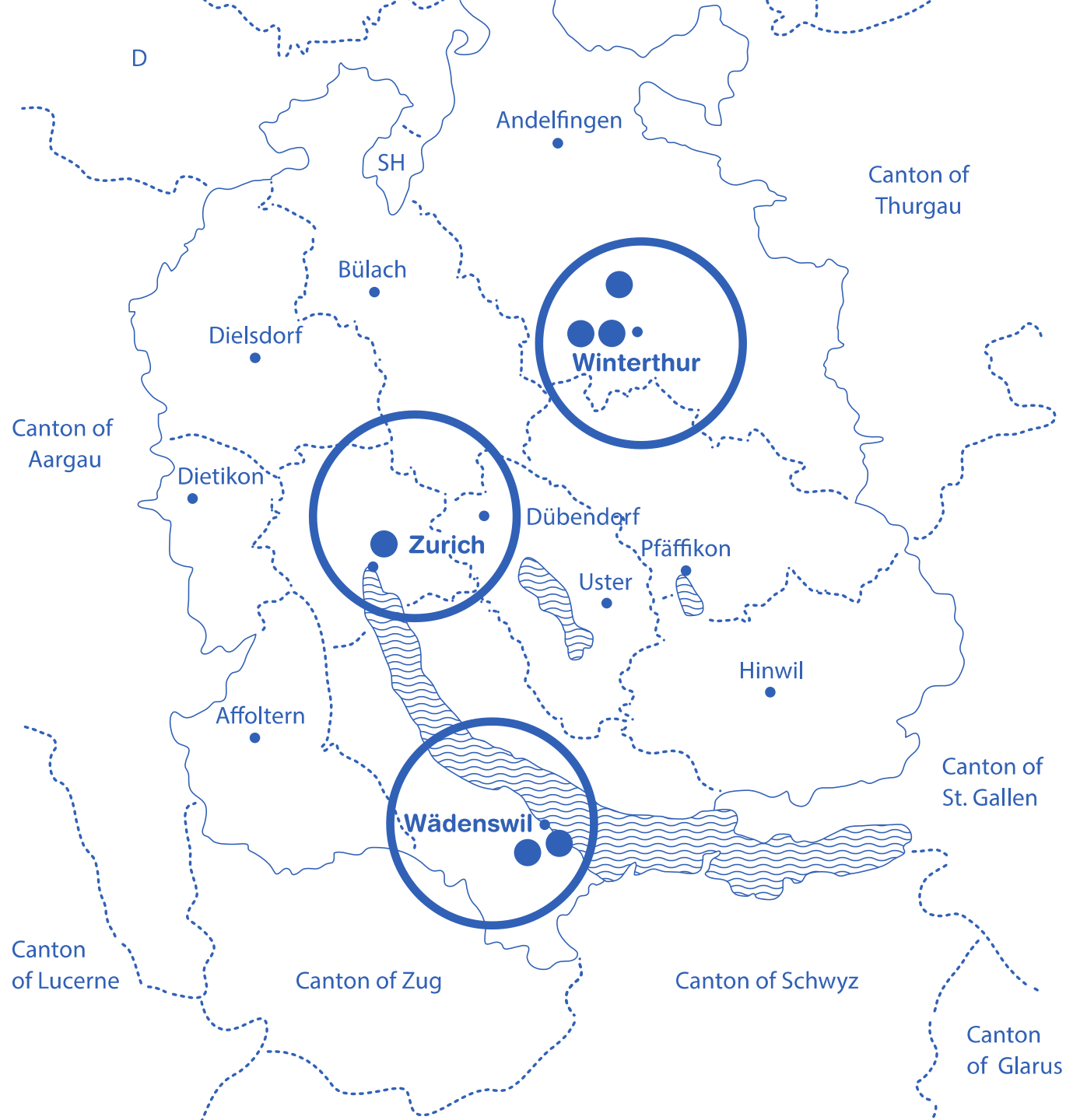


ZHAW—hp, hp, ph: What?

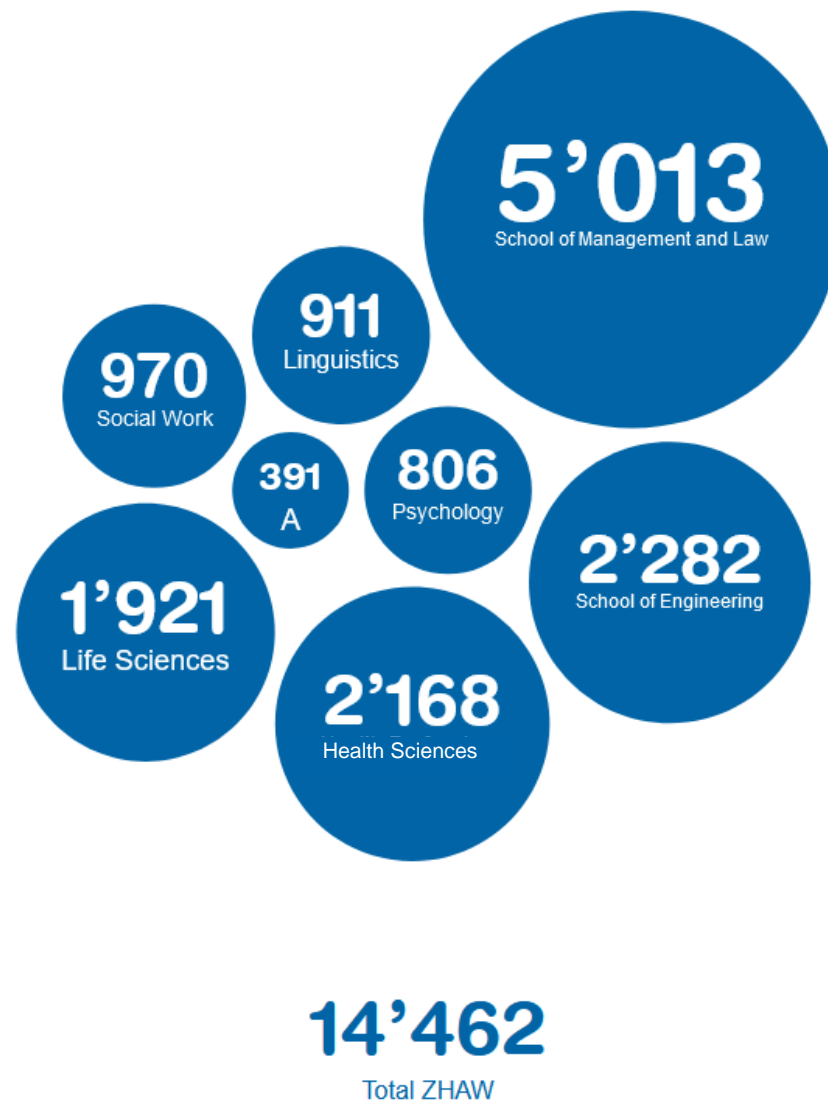
**SSPH+ Faculty Meeting
May 8th, 2024**

**Andreas Gerber-Grote
Simon Wieser**





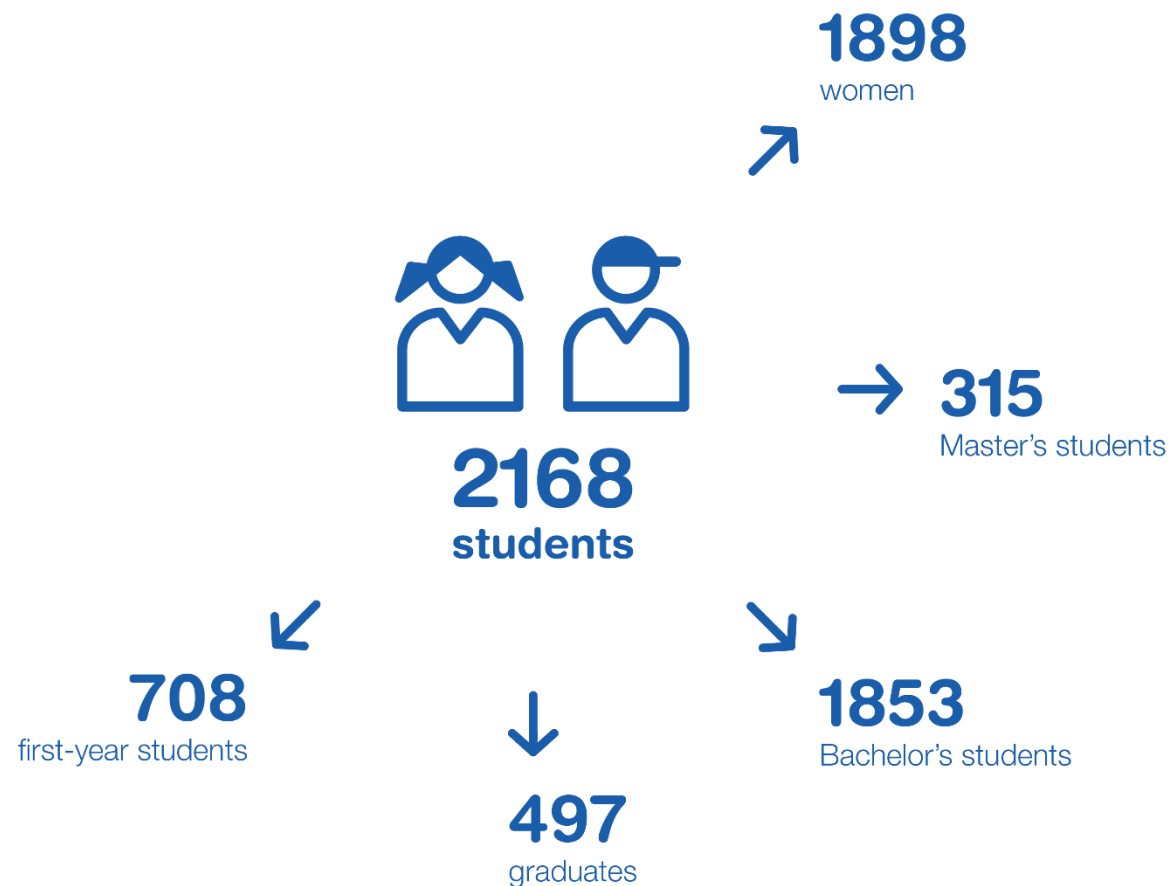
ZHAW: 8 Schools with all students



School of Health Sciences: 5 Institutes



School of Health Sciences: 2168 students training as health professionals



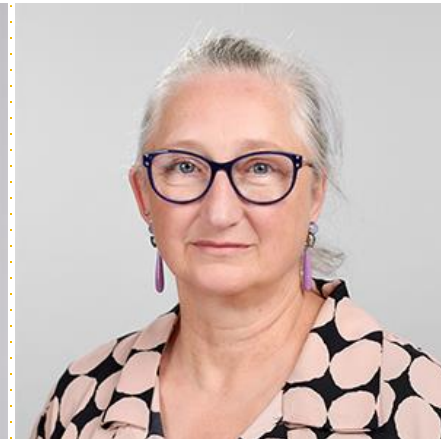
Members of the School Management



Prof. Dr. Andreas Gerber-Grote
Dean School of Health Sciences



Prof. Dr. Markus Wirz
Head of Institute of Physiotherapy



Prof. Dr. Katharina Fierz
Head of Institute of Nursing



Prof. Christiane Mentrup
Head of Institute of Occupational



Prof. Dr. Andreas Pfister
Co-Head Institute of Public Health



Prof. Dr. Julia Dratva
Co-Head Institute of Public Health



Claudia Durussel
Head of Services



Prof. Dr. Jessica Pehlke-Milde
Co-Head of Institute of Midwifery
and Reproductive Health



Prof. Dr. Joyce Edmonds
Co-Head of Institute of Midwifery
and Reproductive Health

The five points of our guiding star

Profession-specific

We educate health professionals and offer profession-specific expertise in healthcare and health promotion.

Application-orientated

We teach and do application-orientated research to improve the health and quality of life of the population.

[Leitstern 2024 2026.pdf](#)

Innovative

We anticipate needs and develop healthcare solutions with users and partners.

Interprofessional

We work together as health professionals and learn about, from and with each other.

Co-creative

We develop approaches across professional boundaries and work together with those affected to develop solutions in the healthcare sector.

Interprofessional Education as integral part of all our BSc programs

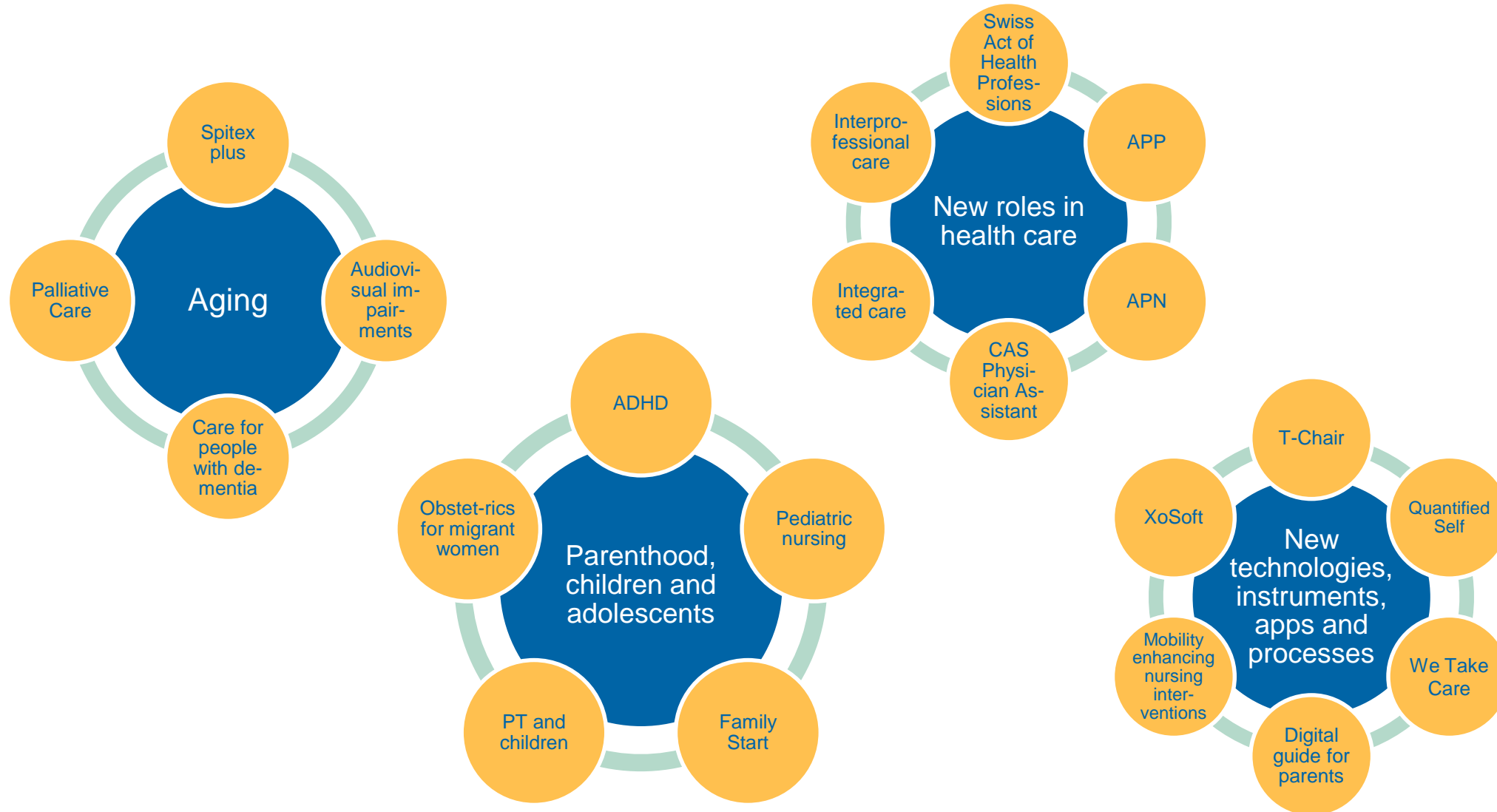
- Joint training of BSc students from occupational therapy, health promotion and prevention, midwifery, nursing and physiotherapy
 - Interprofessional skills across professional boundaries Specifically: Joint teaching modules (scientific work, communication/interaction, interdisciplinary group work), theme weeks
- The focus is on cooperation between the professions and disciplines.

PhD Program Care and Rehabilitation Sciences

- Academic connection for the health care professions
- Together with the Medical Faculty of the University of Zurich
- For graduates of the health professions occupational therapy, midwifery and physiotherapy
- Duration: 3 years full time
- Title: Dr. sc. Med / PhD



Cluster of research at the School of Health Sciences



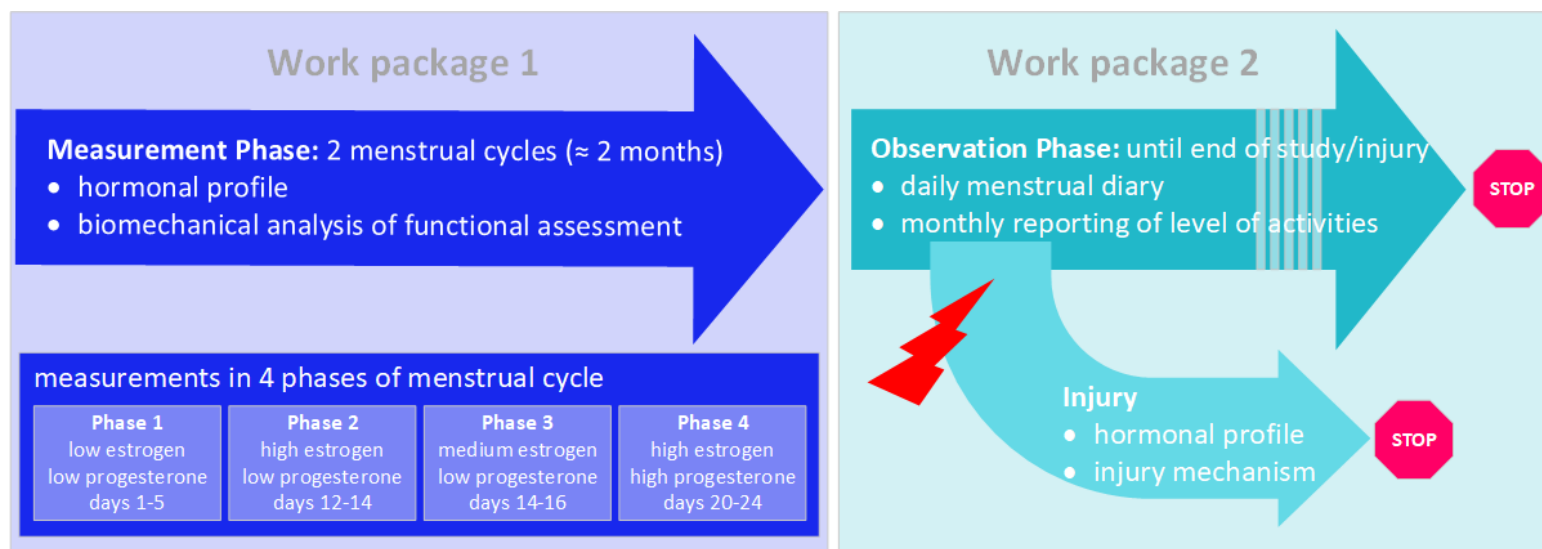
Research School of Health Sciences

Examples of research projects

FeHBI: Influence of Sex Hormones on the Biomechanics and Injuries of the Lower Extremities in Female Recreational Athletes

Aims of the study:

1. identify influence of hormonal profile on biomechanical variables during functional assessments in female recreational athletes.
2. identify the combined influence of biomechanics and hormonal profiles on ligamentous lower extremity injuries.

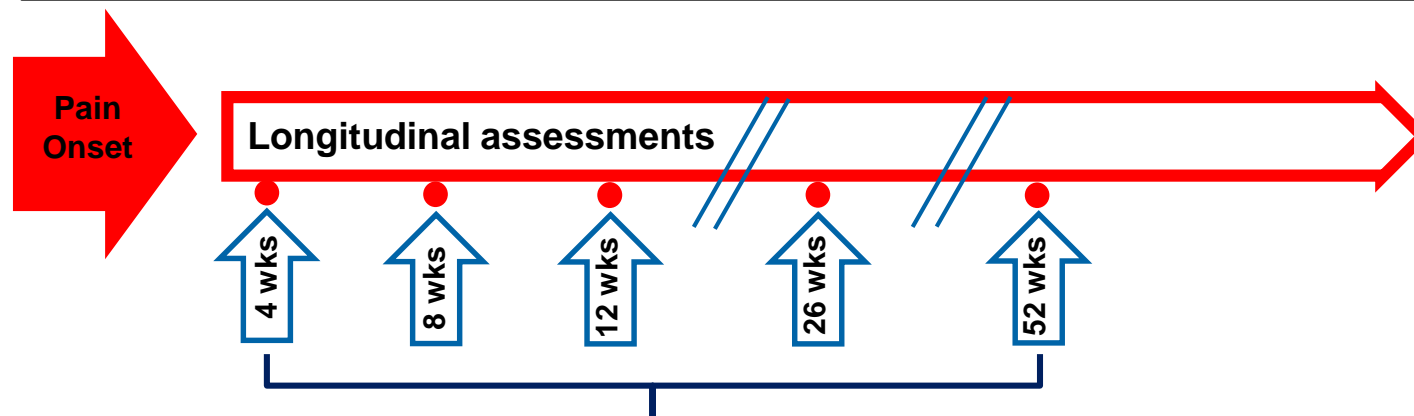


Research School of Health Sciences

Examples of research projects

A Longitudinal Prospective Study for Low Back Pain

Principal Investigator: Prof. Dr. Sabina Hotz-Boendermaker
Swiss National Science Foundation (SNF) 320030_173297



1. **Online survey:** psychosocial variables, behavioral data
2. **Clinical assessments:** sensory perception and movement control
3. **Functional MRI experiments** at 4 and 26 weeks

Main Outcomes:

- Heterogeneity of acute pain course over one year (Pfeiffer et al., 2024).
- Pain persistence mediates central pain processing (Dietrich et al., 2023).
- Adaptation of brain networks within the first four weeks (Boendermaker et al., 2023).
- Sensory perception remains unaffected in people with back pain (Morf et al., 2021).
- Overactivity, not avoidance behavior, is associated with pain persistence (Hotz-Boendermaker et al., under review).

Research School of Health Sciences

Examples of research projects

Situation of physiotherapists in the Swiss healthcare system

Leah Reicherzer, Markus Wirz & Irina Nast

? Characteristics of the physiotherapy workforce, workforce losses and indicators of skill shortage

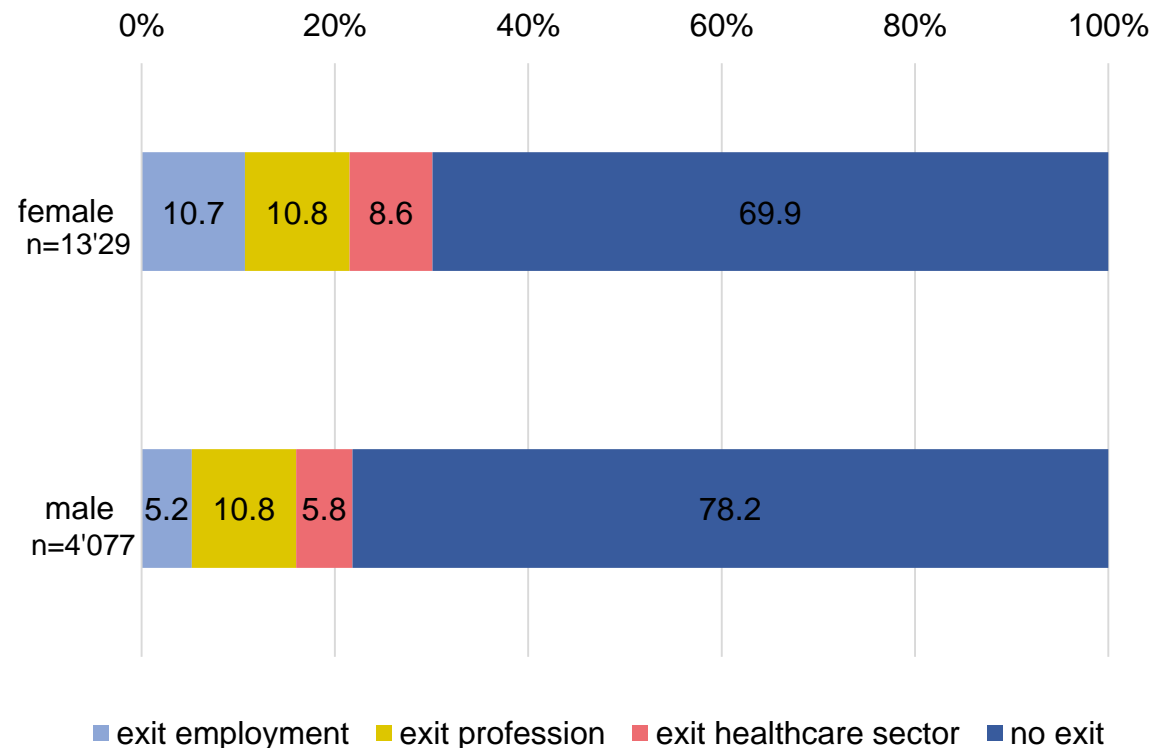
📊 Descriptive analysis of structural survey data 2016-2018 (population census, FSO) with rounded weights

🔍 15'199 physiotherapists
75.8% female, mean age 42.1 ± 12.1 years

Indicators of skill shortage:

- high immigration (17.2%)
- high employment growth rate (152.8%)
- low unemployment rate (0.9%)

Types of workforce losses by gender (in %)



How can adolescents and adults be addressed more specifically?

The REACH target group profiles



Development and validation of a segmentation approach

- Literature research (n=219)
- Expert interviews (n=8)
- Group discussions pupils (n=9)
- Interviews pupils (47)
- Observation youth centres (2)
- Survey Youth (n=2736)

- Interviews adults (50)
 - Survey Adults (n=2'899)
- Schweizerische Eidgenossenschaft
 Confédération suisse
 Confederazione Svizzera
 Confederaziun svizra
Tabakpräventionsfonds

Communication of results

www.at-schweiz.ch/aktivitaten/segmentierung-reach

Teenagers: 5 segments based on current smokers, former smokers, and non-smokers

- Segment 1: 30% - interested in smoke-free environment, motivated to quit
- Segment 2: 23% - curious, searching, interested
- Segment 3: 20% - social smoking environment, self-confident
- Segment 4: 17% - interested in future orientation, willing to take risks
- Segment 5: 10% - depressive, lonely, low future orientation, stressed

Proportion of smokers and former smokers

Adults: proportions of smokers with desire to stop smoking

- Segment 1: 23% - Smokes for enjoyment reasons
- Segment 2: 33% - Smokes for stress reasons
- Segment 3: 19% - Smokes for addiction reasons
- Segment 4: 25% - Smokes for social reasons

Proportion of smokers with desire to stop smoking

Cigarettes per day

- Ca. 20 cigarettes
- Ca. 15 cigarettes
- Ca. 5 cigarettes

Ongoing research projects

Developing evidence-based prevention messages

- Prevalence of segments per sport (e.g., football)
- videos on segments for trainers

COOL & CLEAN

Co-creating smokefree places

- together with adolescents (of all segments)
- around vocation schools

Assessing health and lifestyle with a segment view

Online-Fragebogen GESUNDHEIT UND LIFESTYLE [↗](#)

Target group specific (social media) campaigns

- Determining prevalence of segments in participants
- Offering self-check and segment specific feedback

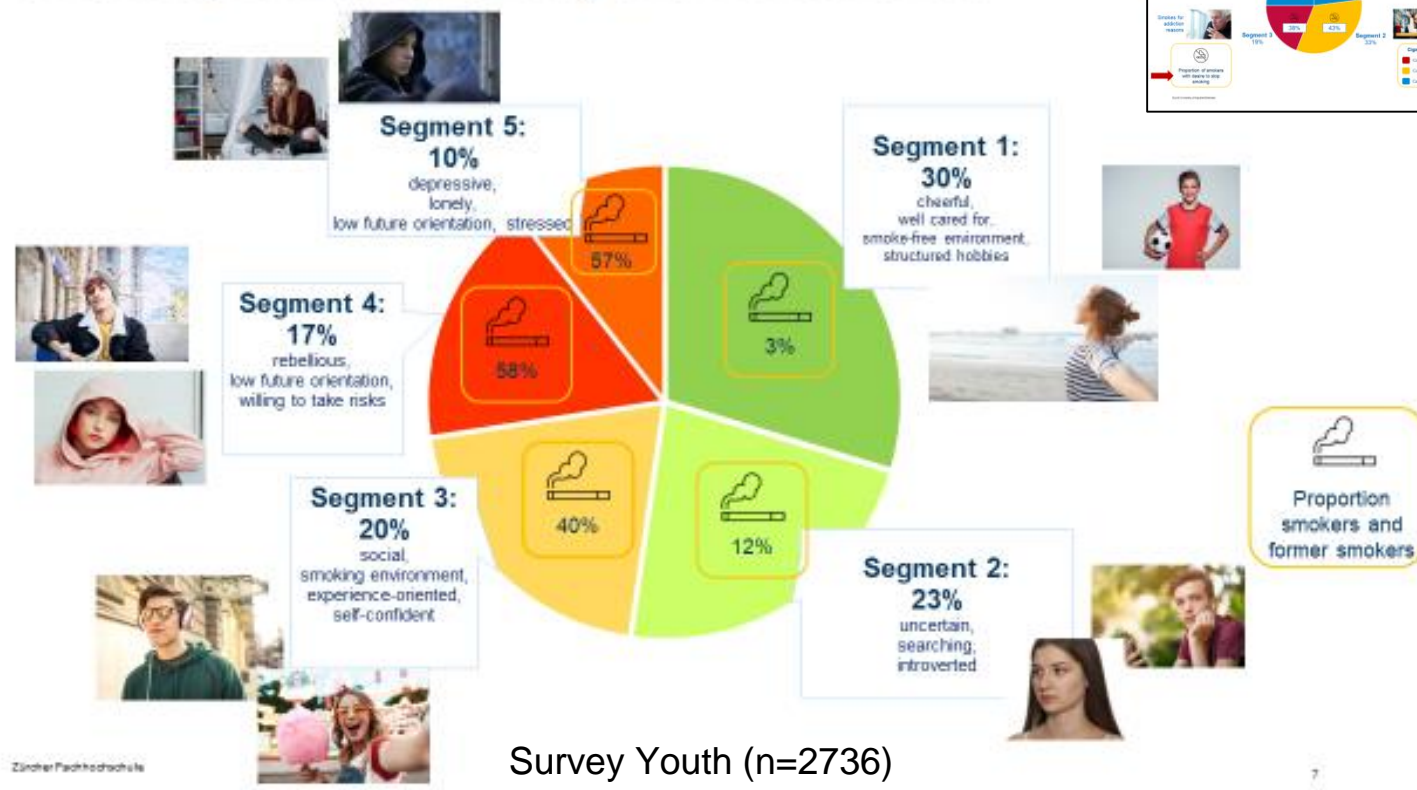
RAUCHFREIER MONAT

How can adolescents and adults be addressed more specifically?

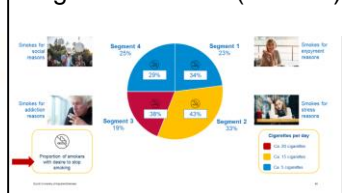
The REACH target group profiles

Development and validation of a segmentation approach

Teenagers: 5 segments based on current smokers, former smokers, and non-smokers

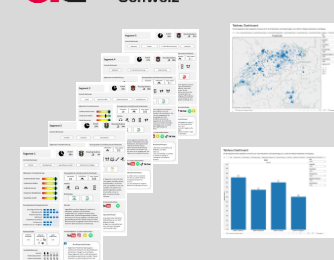


Segments Adults (n=2899)



Communication of results

at Arbeitsgemeinschaft Tabakprävention Schweiz



www.at-schweiz.ch/aktivitaten/segmentierung-reach

Ongoing research projects

- Developing evidence-based prevention messages
- Assessing health & lifestyle with a segment view
- Target group specific (social media) campaigns
- Co-creating smokefree places

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Tabakpräventionsfonds

Online-Fragebogen GESUNDHEIT UND LIFESTYLE
123
210
301

COOL & CLEAN swiss olympic

RAUCHFREIER MONAT

Interdepartmental Networks

The **Child and Youth Public Health Research** Network (CYPHER) conducts interdisciplinary and applied research for better health of children, adolescents and young adults.

Contact: julia.dratva@zhaw.ch



GEKONT bundles the ZHAW expertise for a benefit-oriented development, implementation and application of health technologies.

Contact: eveline.graf@zhaw.ch

Interdepartmental Networks

The **Digital Health Lab** contributes to an intelligent digital transformation in the healthcare sector.

Contact: sven.hirsch@zhaw.ch



Welcome to the **Digital Health Lab Day** the 3rd. Sept. 2024



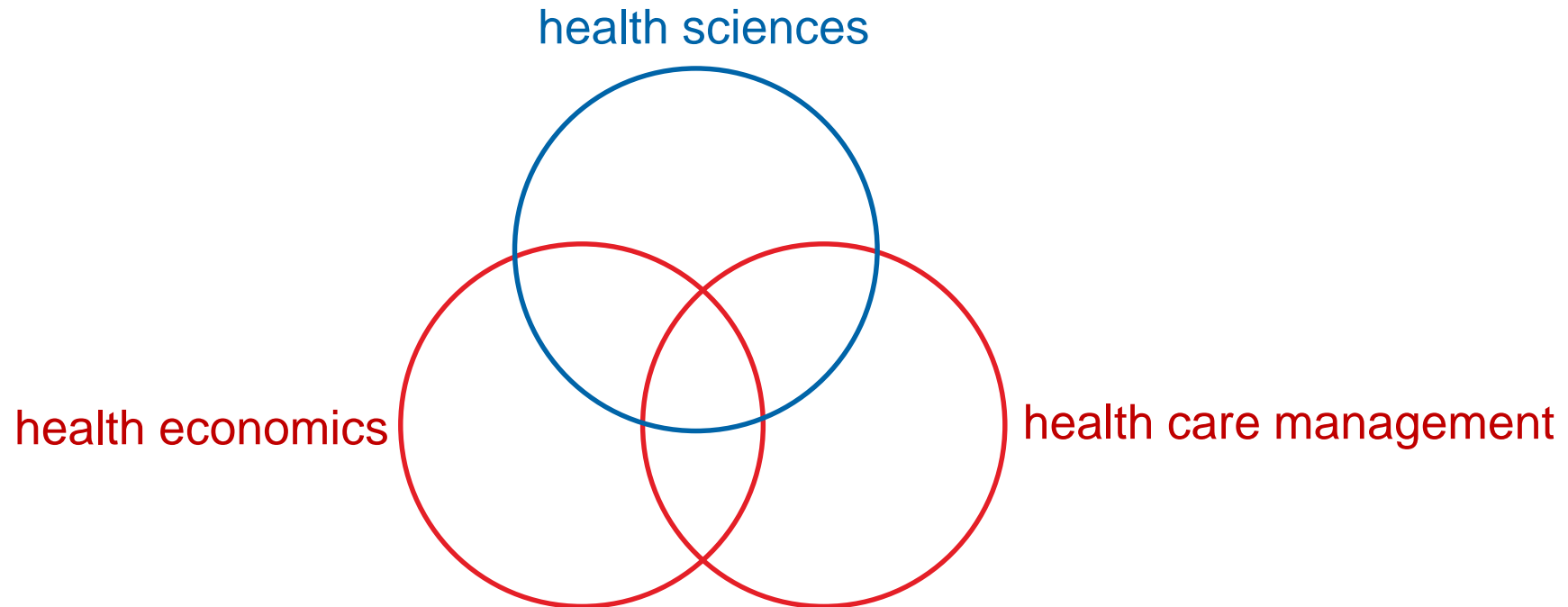
Applied Gerontology AGE+ addresses needs and demands of older people and their relatives from multiple perspectives

Contact: katharina.fierz@zhaw.ch

Winterthur Institute of Health Economics

Part of the ZHAW School of Management and Law (Business School)

Staff of over 30 researchers / lecturers in 5 teams



The 4 research teams of the institute

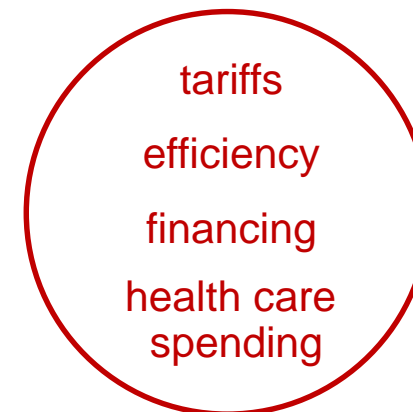
Health services research



HTA and health economic evaluations



Health economic research



Healthcare management



Teaching

MSc in Business Administration –
Major Health Economics and
Healthcare Management

Continuing education program
(MAS, CAS)

Research

Multitude of research projects

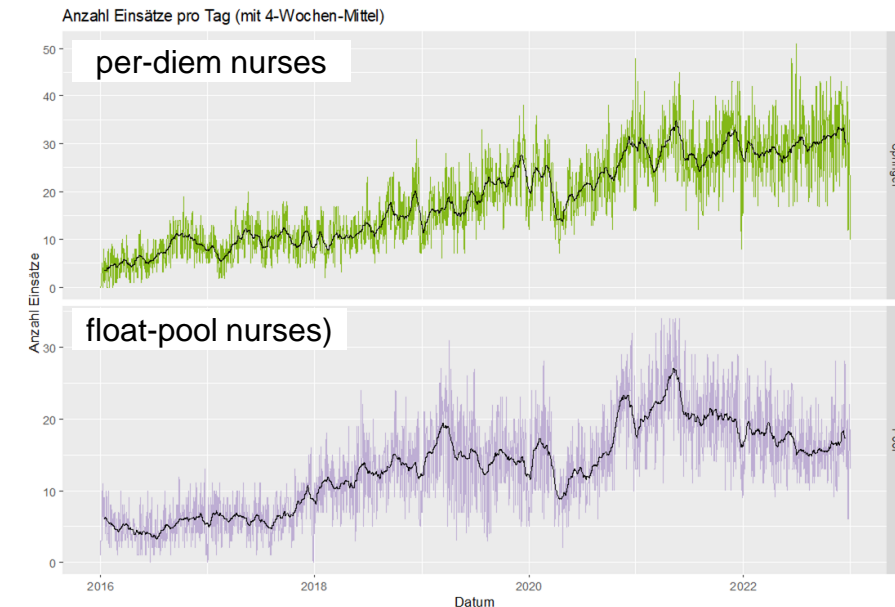
- often commissioned by health care industry, trade associations and government agencies
- highly applied
- not everything can be published

Winterthur Institute of Health Economics

Examples of research projects

- The impact and management of temporary nurse work in Switzerland using online labor platforms
- Project financed by NFP 77 “Digital Transformation” (SNSF)
- In collaboration with Institute for Nursing Science, University of Basel Département de Psychologie, Université de Fribourg

Growth of temporary nurse bookings
on online labor platform



Winterthur Institute of Health Economics

Examples of research projects

- Covid-19 Social Monitor: Real time monitoring of the public health impacts of the pandemic on the Swiss population
- Project financed by FOPH
- In collaboration with EBPI, University of Zurich Clinical Trial Unit, University of Bern

The image shows a collage of research outputs and a digital dashboard. At the top, three research articles are displayed:

- PLOS ONE**: "The COVID-19 Social Monitor longitudinal online panel: Real-time monitoring of the public health consequences of the COVID-19 emergency in Switzerland" by Andrei Moser et al.
- PLOS ONE**: "Health and social behaviour through pandemic phases in Switzerland: Real-time-trends of the COVID-19 Social panel study" by Andrei Moser et al.
- Swiss Medical Weekly**: "Differences in COVID-19 vaccination uptake in the first 12 months of vaccine availability in Switzerland – a prospective cohort study" by Sarah Heininger et al.

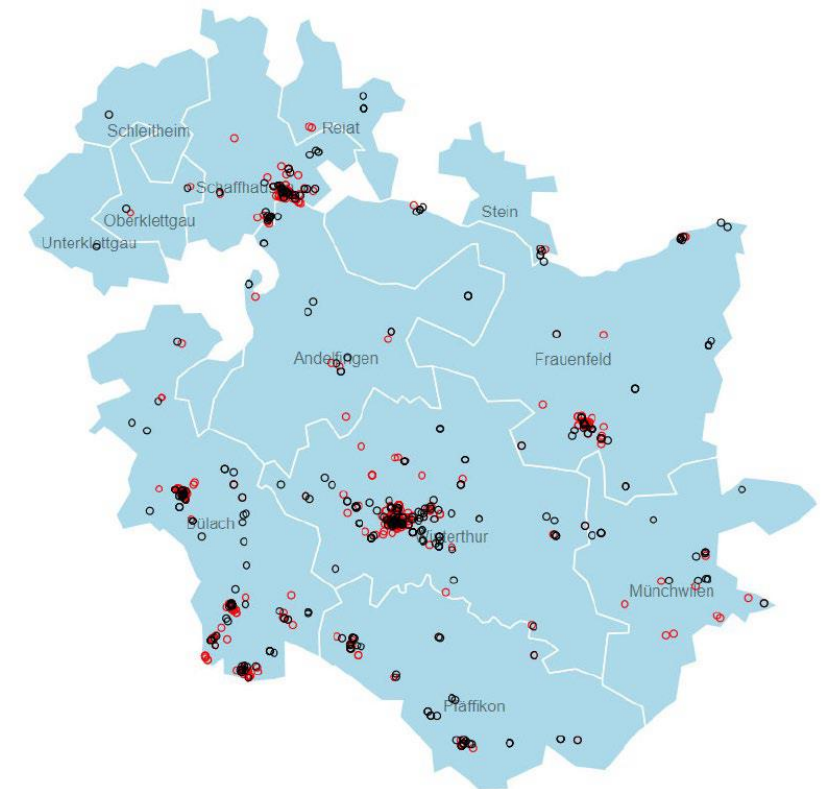
Below the articles is a screenshot of the **COVID-19 Social Monitor** web application. The interface includes a sidebar with navigation options like "Project description", "Explore indicators", and "Indicators by topic". The main content area features a line chart titled "Good quality of life" showing the "Proportion of respondents" over time (Wave) for two groups: "Swiss-born" (red) and "foreign-born" (teal). The chart includes 95% confidence intervals and a shaded area representing the "Estimator and 95% confidence interval". The y-axis ranges from 75% to 90%, and the x-axis shows waves from 2020-03-01 to 2022-01-01. A source note at the bottom reads: "Source: COVID-19 Social Monitor https://covid19.ctu.unibe.ch/".

Winterthur Institute of Health Economics

Examples of research projects

- Monitoring of the evolution of ambulatory medical care in the Winterthur health area
- Project financed by «Network Health Economics Winterthur» (which funded our institute in 2002)
- In collaboration with physicians and hospitals of the region

Physician practices in the Winterthur health area



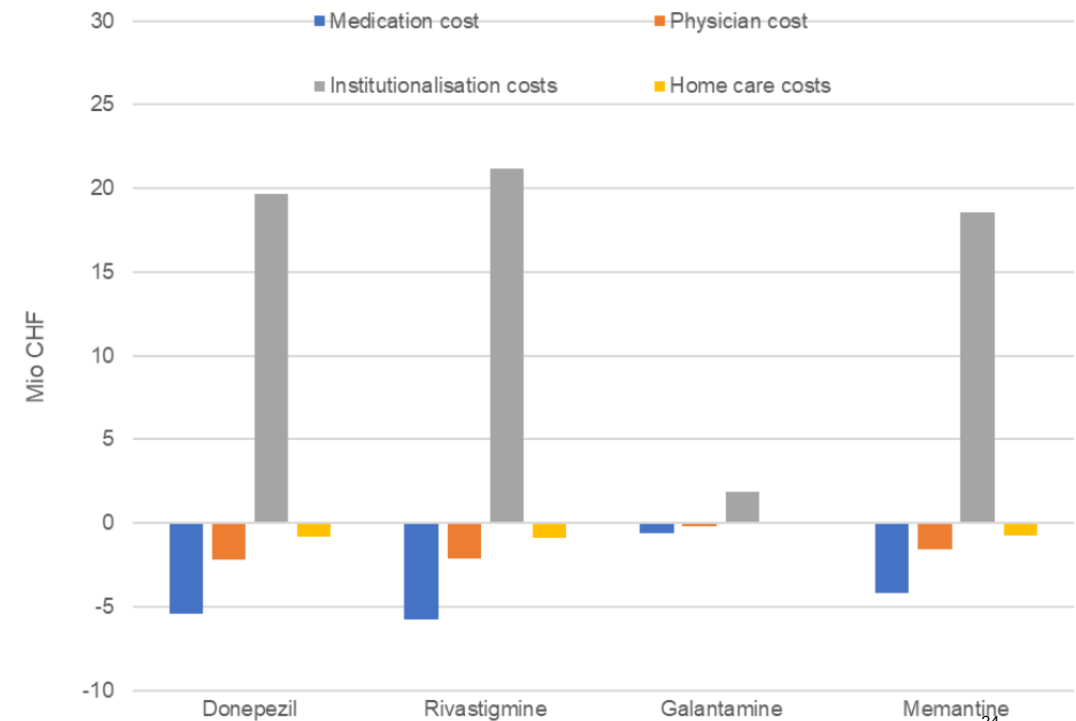
currently no publicly available results

Winterthur Institute of Health Economics

Examples of research projects

- Should the existing dementia drugs still be covered by Swiss mandatory health insurance?
- Health technology assessment financed by FOPH
- In collaboration with ethics and law experts at ZHAW

Economic impact of removing one AD treatment in 2021

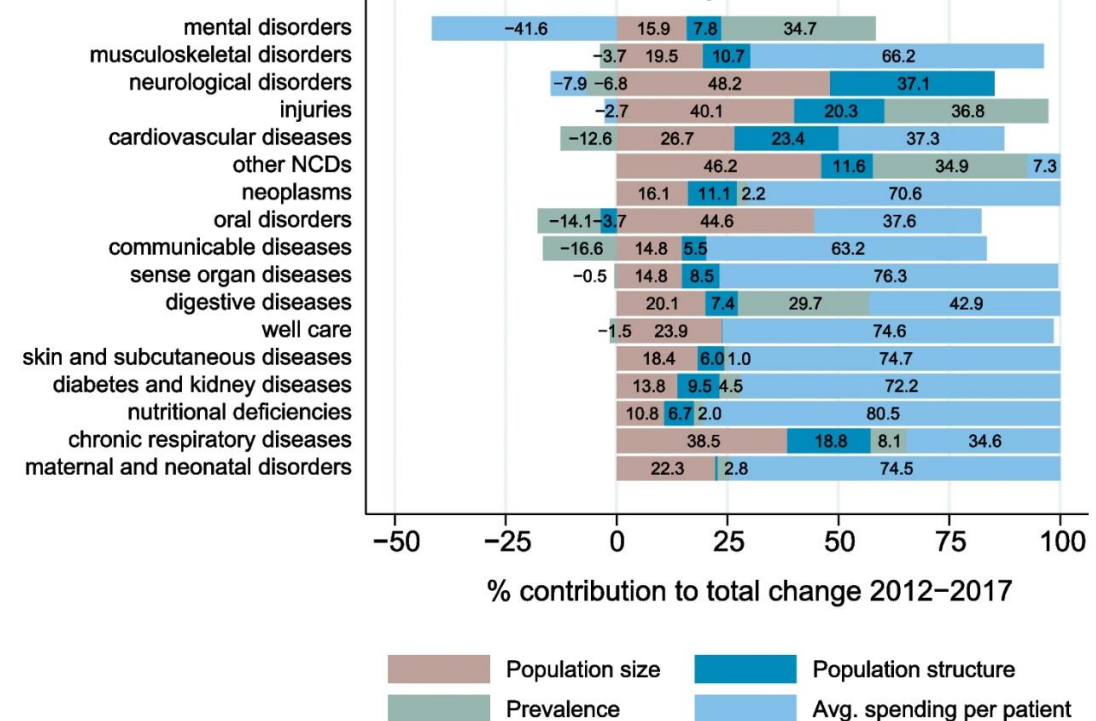


Winterthur Institute of Health Economics

Examples of research projects

- What is the cost of specific diseases?
- What are the drivers of health care spending?
- Series of projects financed by FOPH, swissuniversities, internal funds
- In collaboration with health and accident insurers

Factor decomposition for major disease groups



Stucki et al. (2023)

ZHAW, School of Health Sciences, and Winterthur Institute of Health Economics

SSPH+ is important for us...

- as school for our PhD students
- as informal platform for exchanging ideas
- as a network facilitating research collaborations
- as a financing source for smaller projects