



Towards a national child and adolescent health strategy in Switzerland: strengthening surveillance to improve prevention and care

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From surveillance to evidence-based public health

In recent years, Switzerland developed two overarching health strategies: one on health in general [Federal Office of Public Health (FOPH) (Bundesamt für Gesundheit) 2013] and one on the prevention of non-communicable diseases (NCD) [Federal Office of Public Health (FOPH) (Bundesamt für Gesundheit) 2016]. Both strategies allude to children and adolescents as vulnerable populations and to childhood as a relevant life phase for adult-onset diseases. While the European community has launched a child and adolescent health strategy (WHO Europe 2014), a specific strategy for children and adolescents is still missing in Switzerland. This lack of a health strategy for society's youngest age group partly explains the lack of an age-specific surveillance concept.

Switzerland's most challenging health issues relate to the burden of non-communicable diseases and mental disorders, both in adults and children. Within a life course perspective, evidence supporting the long-term health consequences of early life exposures and risks is abundant

(Newham and Ross 2009). For example, obese children have a higher risk of developing chronic conditions such as heart disease (Umer et al. 2017). Most adult smokers became addicted to tobacco in adolescence (Johnston et al. 2012). Early mental disorders are linked to early and persistent substance abuse, school dropout, and early disability or self-harm (Henderson et al. 2017).

Recent national reports highlighted the relative paucity of data on health and health determinants of children and adolescents, on utilisation of, and access to health services [Dratva et al. 2013; Swiss Health Observatory (OBSAN) 2015]. In particular, data from paediatricians and general practitioner who diagnose and treat most children are not accessible, neither to policy makers nor to researchers. Mental health and developmental delays are health topics on which very little is known and even for many physical chronic conditions, such as asthma or hypertension, no recent prevalence data exist.

Evidence-based public health needs readily available high quality data for policy makers and professionals to take adequate preventive action and set priorities, to plan, implement and evaluate health care and health promotion, and enable pediatric health service research. Such data need to be available on a national but also on a regional and sub-regional level, as well as by socio-economic and cultural characteristics to address the actual public health needs (Alexander et al. 2015; Bringolf-Isler et al. 2015).

Bringing stakeholders together...

With the support of the Swiss School of Public Health, the workshop "Toward a national child and adolescent surveillance system" took place at the University of Basel in February 2017. The goal was to bring together stakeholders from various sectors, identify relevant health indicators, and thereby contribute to the building of a

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Table 1 Additional child and adolescent health themes and indicators for a comprehensive non-communicable disease indicator set (recommended by workshop participants “Toward a national child and adolescent surveillance system” February 2017, Basel, Switzerland)

Theme	Set of indicators
Physical and biological environmental determinants	<ul style="list-style-type: none"> a. Exposure to road traffic (noise, air pollution, and various chemical exposures) b. School physical environment (temperature, air quality, noise, hygiene) c. Child-friendliness of neighbourhoods (playgrounds, safety, environmental exposures, green space, child-specific needs)
Socio-economic environment	<ul style="list-style-type: none"> a. Family relationships and parental stressors b. Life style and health risks shared by families in general and specifically exposure to violence at home c. Access to higher schooling and educational measures
Competences and resilience	<ul style="list-style-type: none"> a. Subjective perception of health and well-being (age groups < 15 years) b. Self-efficacy c. Social support network (child and its family) d. Knowledge and decision-making skills regarding: environmental exposures, nutrition, addictive substances, media, sexuality
Health outcomes	<ul style="list-style-type: none"> a. Child somatic, cognitive, language, motor, psychosocial development b. Prevalence and incidence of chronic health conditions
Access to health care services and health promotion	<ul style="list-style-type: none"> a. Access to health care and utilisation across the life course b. Utilisation rate of preventive medical examinations c. Workforce of health care services (adequacy of training, staffing) d. Access to/quality of health promotion

genuine surveillance and information system. More than 50 experts in childhood and adolescence public health from medicine, psychology, sociology, and economy, researchers, health care professionals, and employees of cantonal and federal authorities, met at the workshop to review, prioritise and extend the list of NCD-indicators recently published by the BAG (Ruch 2016). The themes discussed and the proposed additional NCD indicators are summarized in Table 1.

Call for a national child and adolescent health strategy

The European Child and Adolescent health strategy 2015–2020 (WHO Europe 2014) addresses the need of specific national public health strategies and surveillance systems, as have been developed and established by many neighbouring countries, in the overall aim of safeguarding and improving health of children and adolescents. Swiss experts attending the workshop expressed a high urgency to follow suit. We therefore call for a specific national child and adolescent health strategy, alongside with the development of a sustainable and comprehensive health surveillance system accompanied by child and adolescent public health research.

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