

Update on Child and Adolescent (Public) Health Priorities

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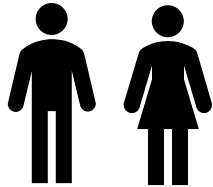
Agenda of today

1. Child and adolescent public health
2. Life course theories
3. Child and adolescent public health priorities
4. in light of COVID-19

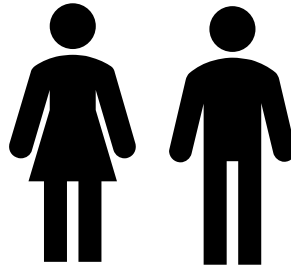
Child public health

The art and science of promoting and protecting health and wellbeing and preventing disease **in infants, children, and young people**, through the skills and organized efforts of professionals, practitioners, their teams, wider organizations, and society as a whole.

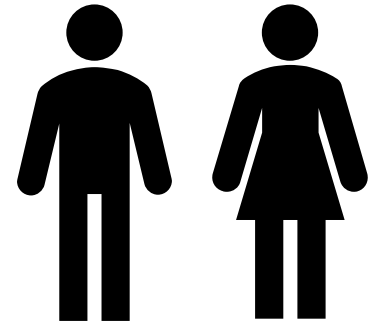
Not just small adults



Infant 0 – 2
Child 3 - 10



Adolescent
10 -19*



Youth
15 – 24*

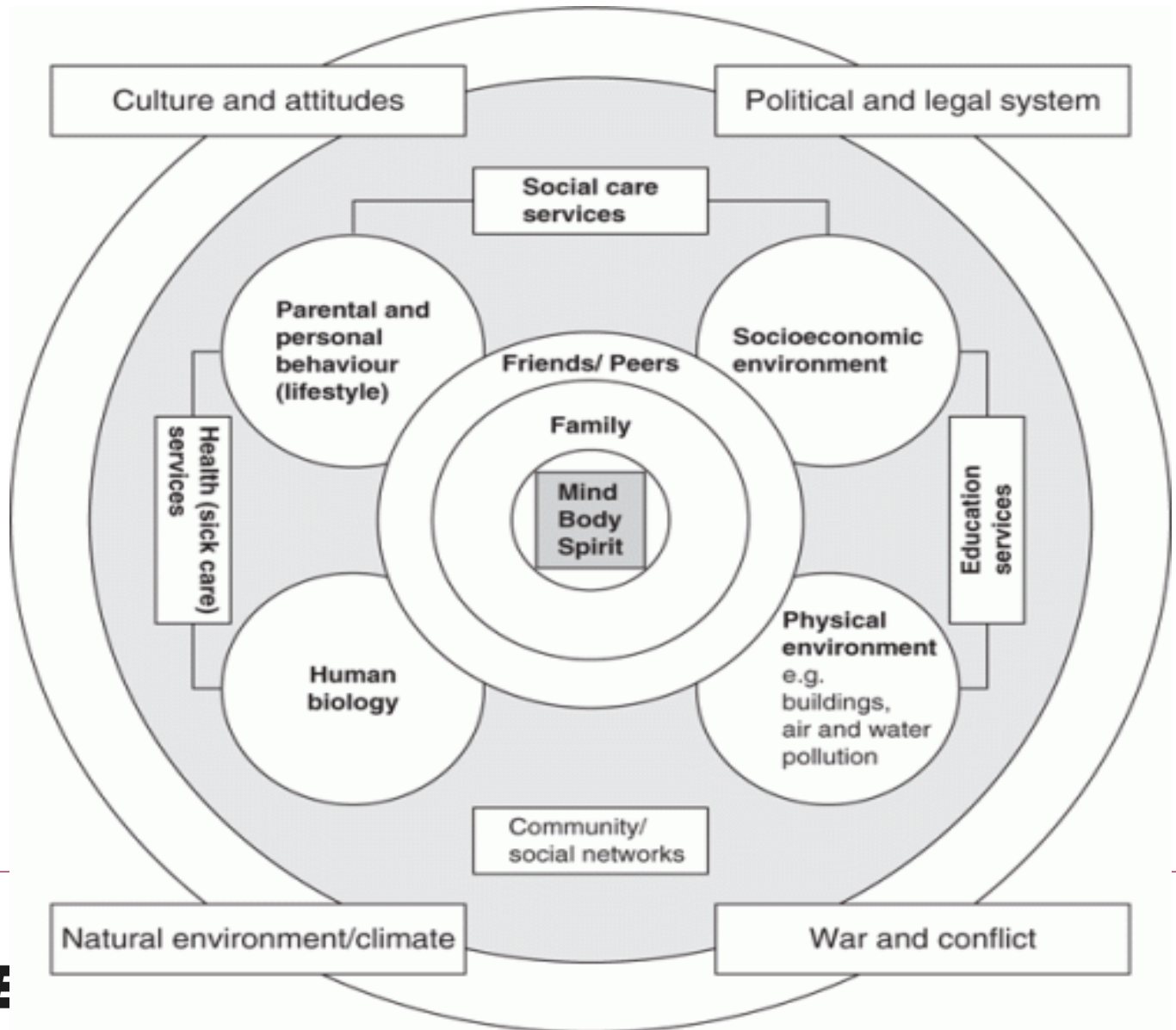
developmental processes, transitions, dependencies
age-specific exposures, diseases and health needs

Vulnerability

- Vulnerability of childhood & adolescence (C&A)
 - Development
 - Lower tolerance/exposures
 - Dependencies
- C&A living in vulnerable conditions
 - Foster care, asylum
 - Poverty
 - Parents with health problems
- C&A with chronic disease
 - Long-term risks
 - Specific health needs
 - Participation/Inclusion issues

Mandala of child health

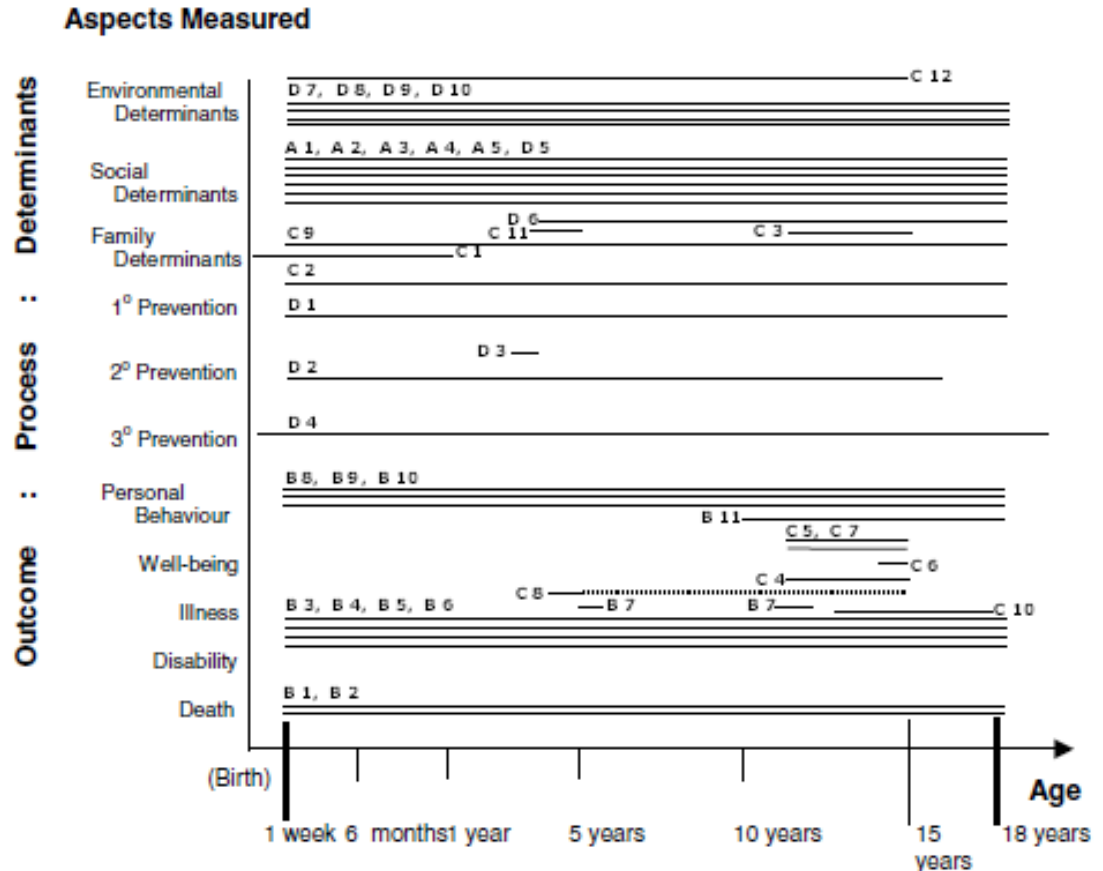
Adapted from Hanckock, T. (1986) in
Child public health, Blair et al 2010



Monitoring child health

Child health indicators must

1. be comprehensive
2. and cover all stages of childhood
3. be child-centered
4. reflect the public health priorities
5. be available or accessible
6. Be comparable and in accordance with international goals



Life Course approach I

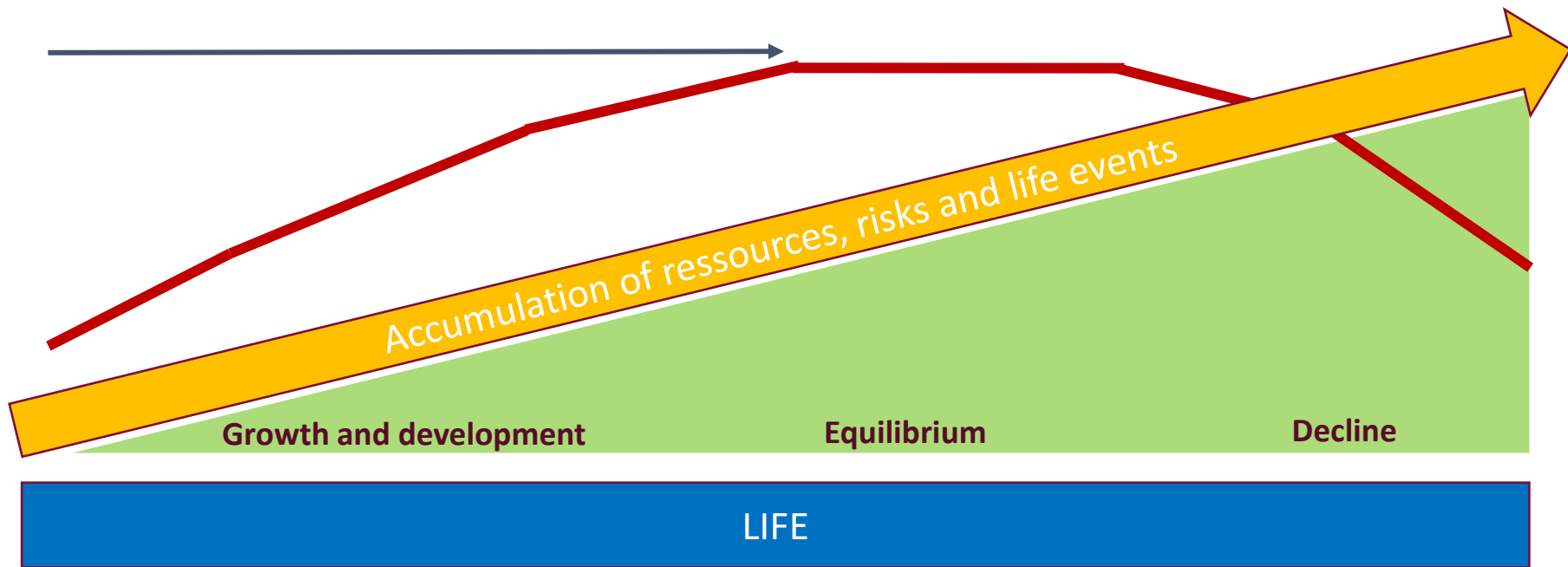
Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.*

Health is modifiable

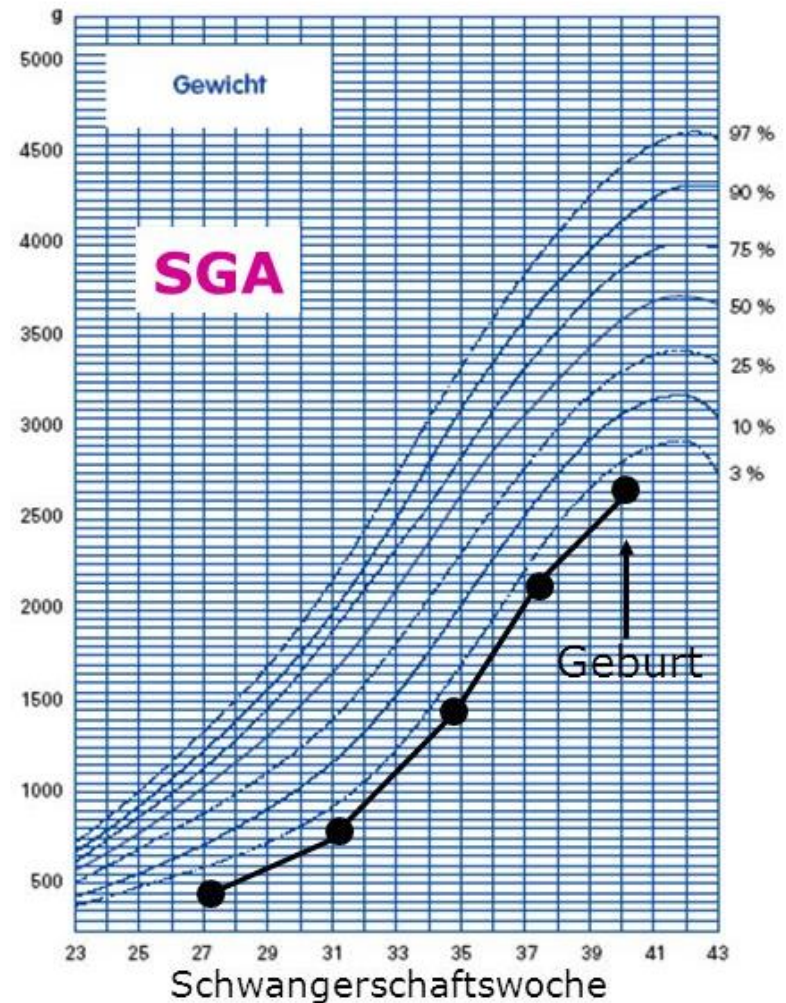
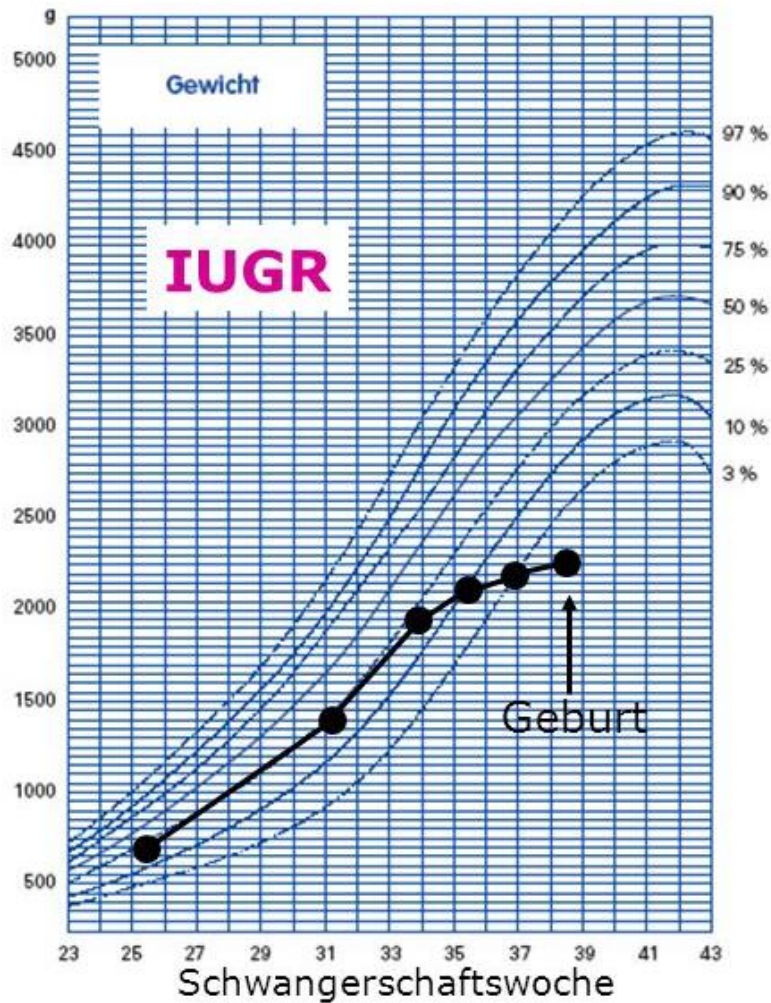
*Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946

Health trajectory over the life course

An individuals' reachable optimum of health and wellbeing

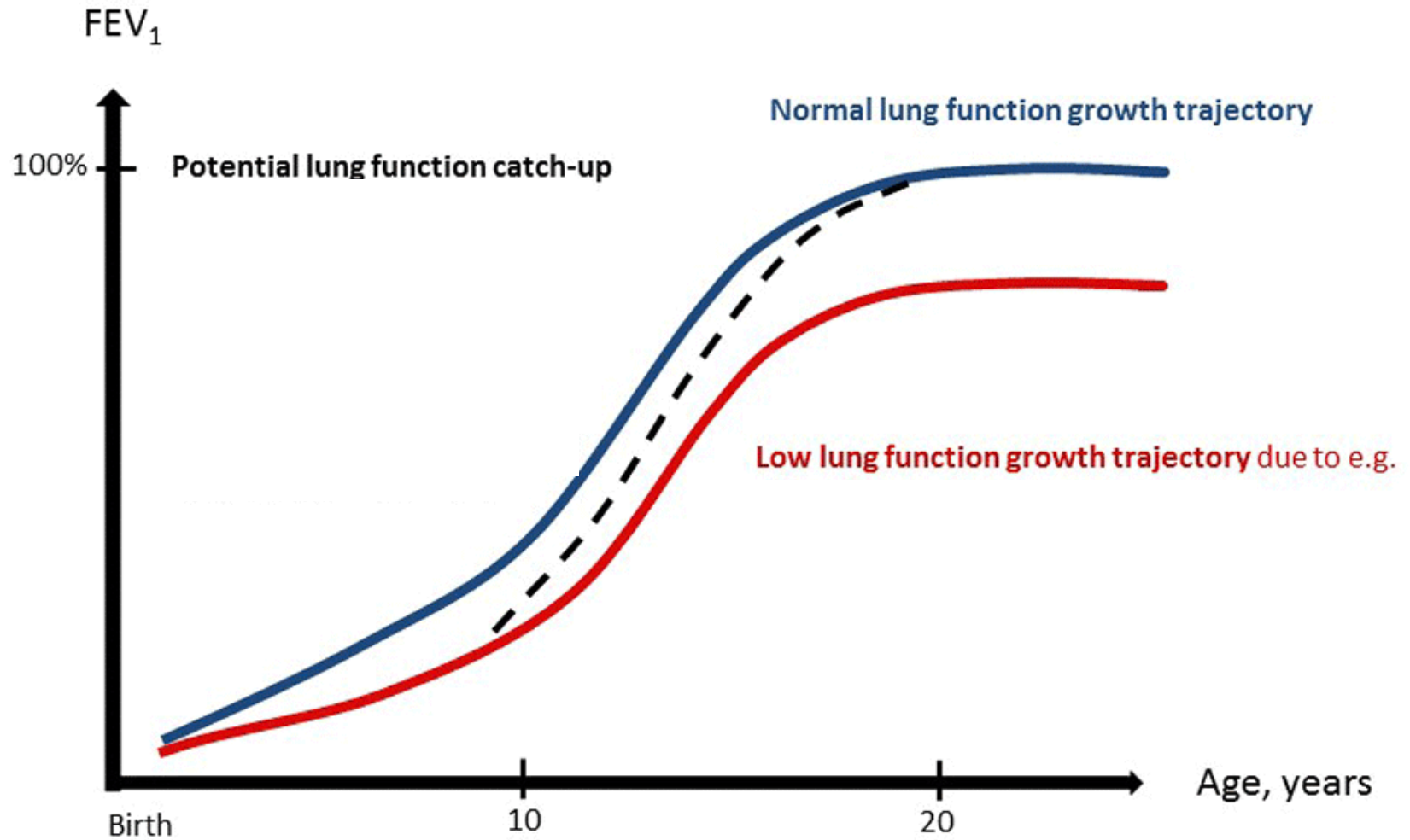


Example 1 Percentiles



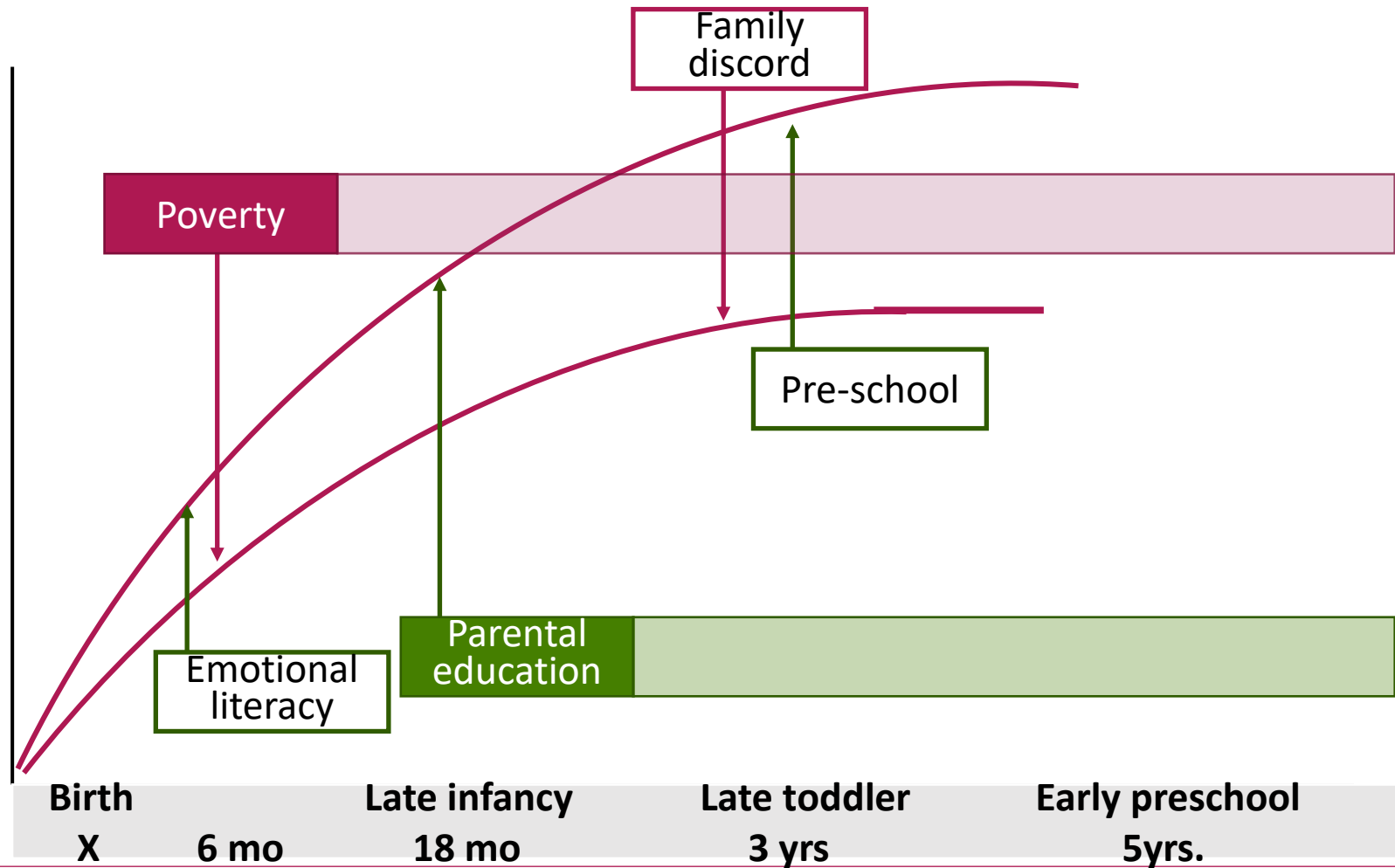
Example 2

Lung function



School readiness

Protective and
Risk factors



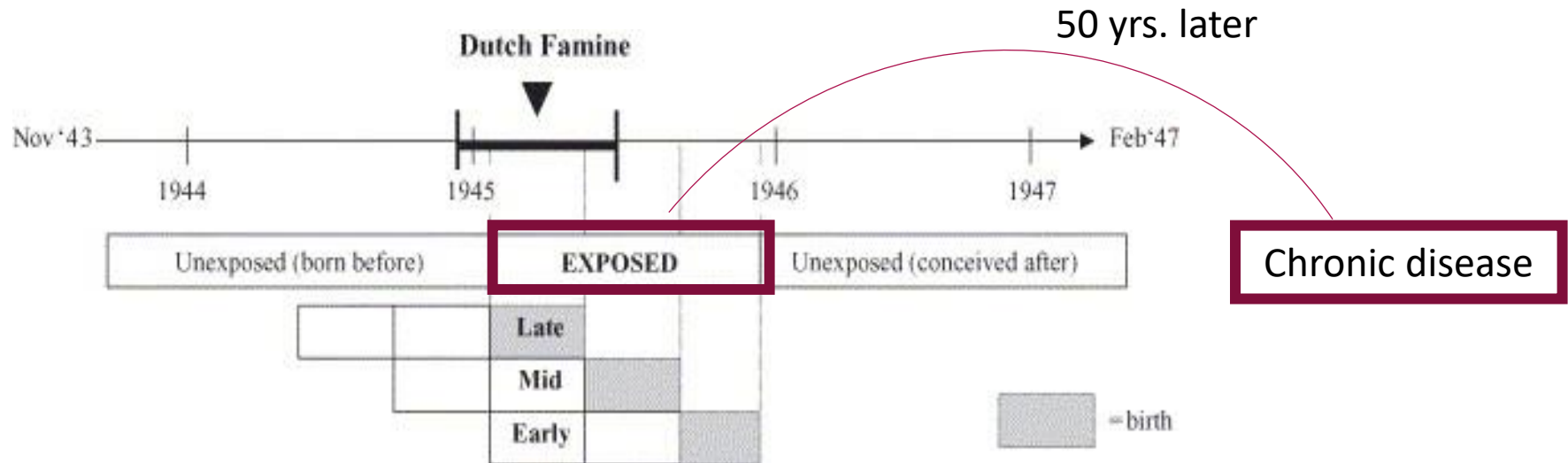
Life Course approach II



Barker Hypothesis “Early life Programming»

programming of later
physiological reactions
due to in-utero exposures.

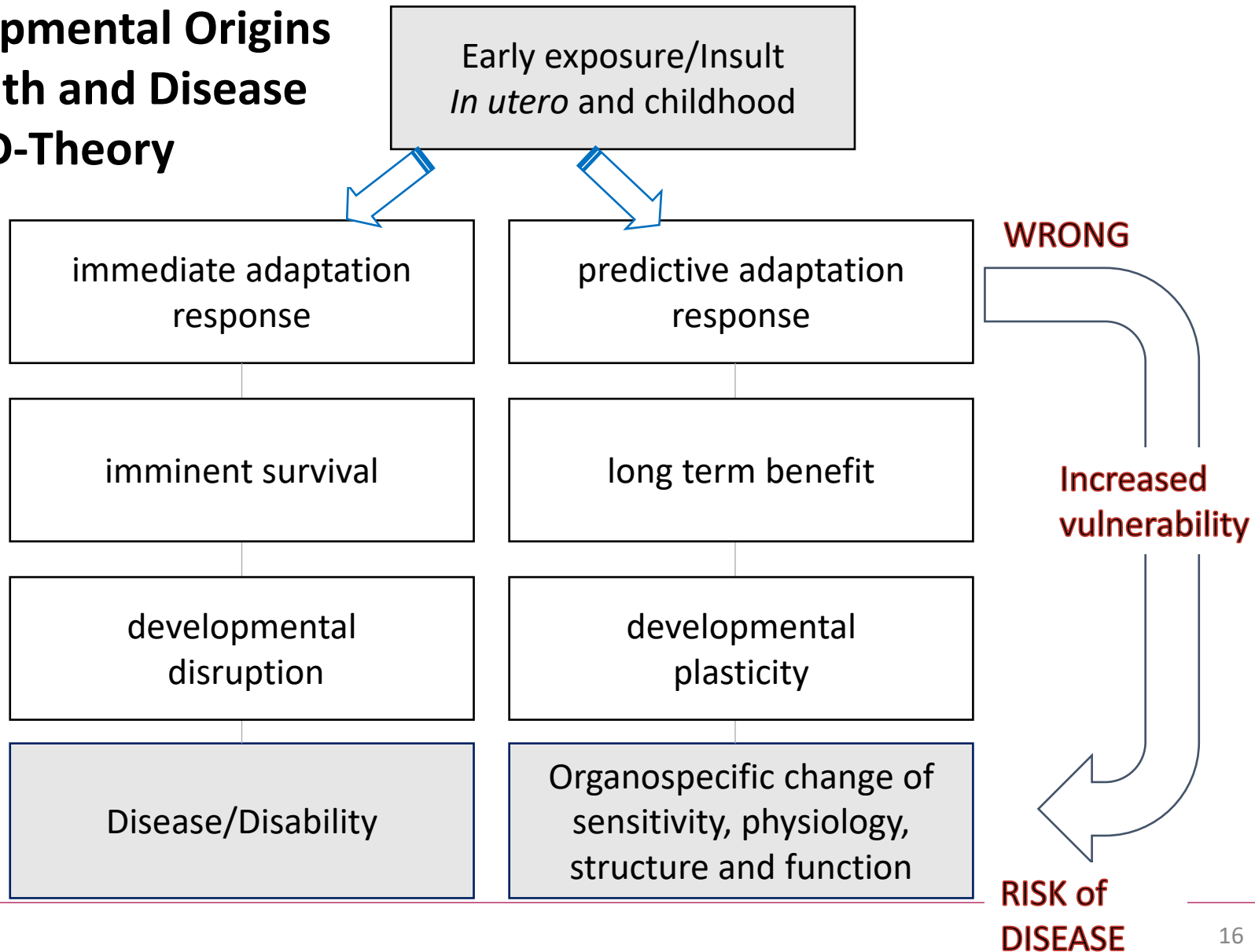
In-utero deprevation and long-term health risk



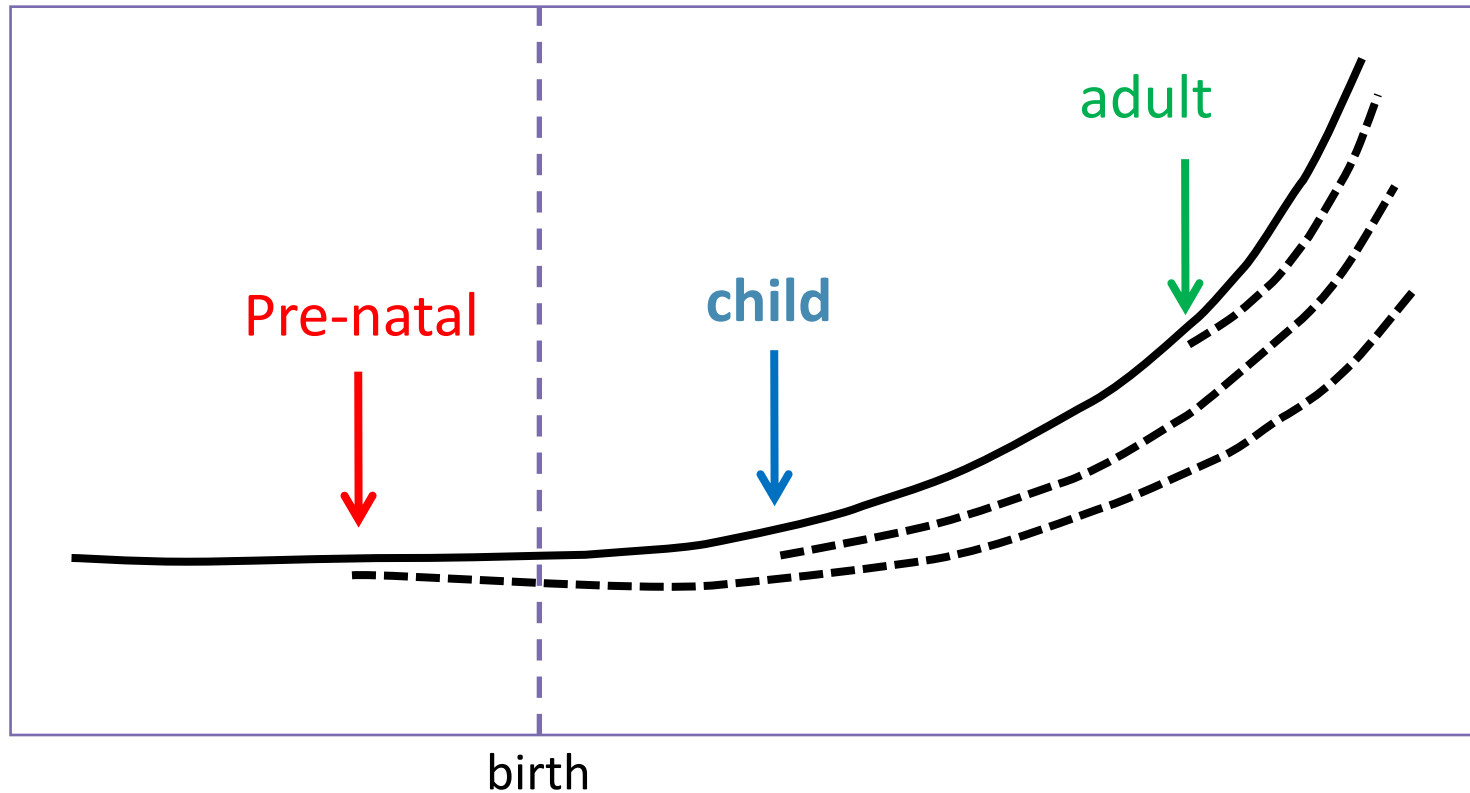
Painter et al., Reproductive Toxicology, 2005

= > Evidence for early programming

Developmental Origins of Health and Disease DOHAD-Theory



Prevention potential



- - - Life time with disease, invalidity, health risk
- Healthy un-exposed life time

Child health priorities in Switzerland

Health in Switzerland – children, adolescents and young people 2020



Main results – Priorities 1

Burden of disease is considerable

- approx. 25% have a **chronic disease** (estimation)
- 5% of <14-year-olds have a **disability** (BFS 2019)
- Ca. a third report **chronic pain** (HBSC 2018)
- 10 - 18% of youth experience **parental violence**

Main results – priorities 2

Mental health disorders/problems are increasing in Switzerland and globally.

- **Moderate – severe depressive symptoms** reported by 13.5% 15 – 25-year-olds (SGB 2017)
- Increase in multiple **psychoaffektive symptoms** from 27,4% in 2002 to 35,2% 2014 in 11 – 15-year-olds. (HBSC)
- The **suicide** rate has more than halved since 2000.

Main results – priorities 3

Some health behaviors improve, are unchanged or new.

- **obesity** incidence is declining (Stamm et al.)
- **sleep deprivation** is prevalent in adolescents (40% <8 -10 hrs.) (HBSC 2018)
- a third of 16 - 25-year-olds **smoked** regularly (most daily) (SGB 2017)
- **Problematic online use** by 8 – 20% (depending on study and definition)

Main results – priorities 4

Social determinants still play a role for healthy development.

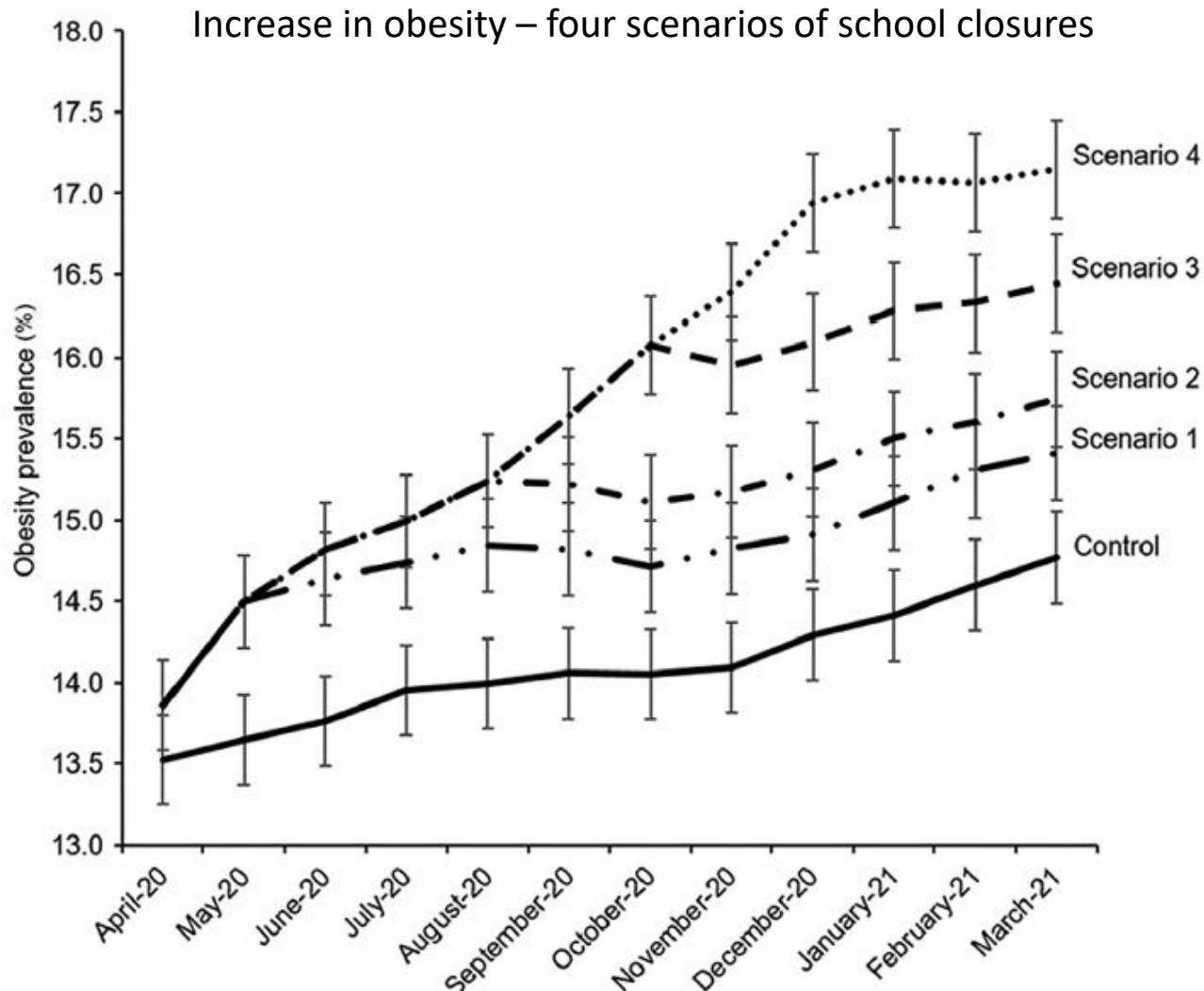
- parental education determines child **educational achievements**
- 5% of children and adolescents were affected by **absolute poverty**,
- 3 times as many are at risk of poverty.

Overarching results:

- ❖ Children, adolescents and young adults are confronted with major changes current and future.
- ❖ Lack of data on health status and behaviors, and utilization of health /preventive services

Health Priorities
in light of the Corona pandemic ?

Obesity – increase expected



+ 2 mo school closure
Nov. - Dec. 2020

+ 2 mo school closure
Sept – Oct. 2020

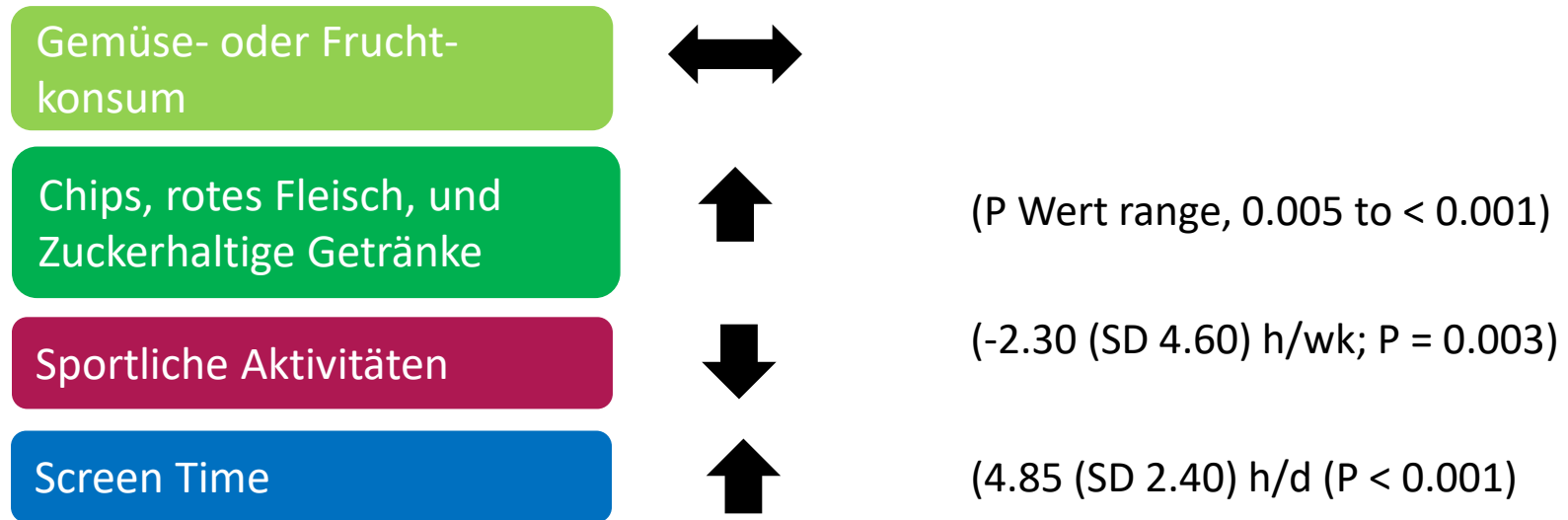
+ 10% lower physical activity
June - August

**2 mo school closure
April – May 2020**

Health behaviours

Pietrobelli et al. 2020 Italy

longitudinal study in 41 obese children

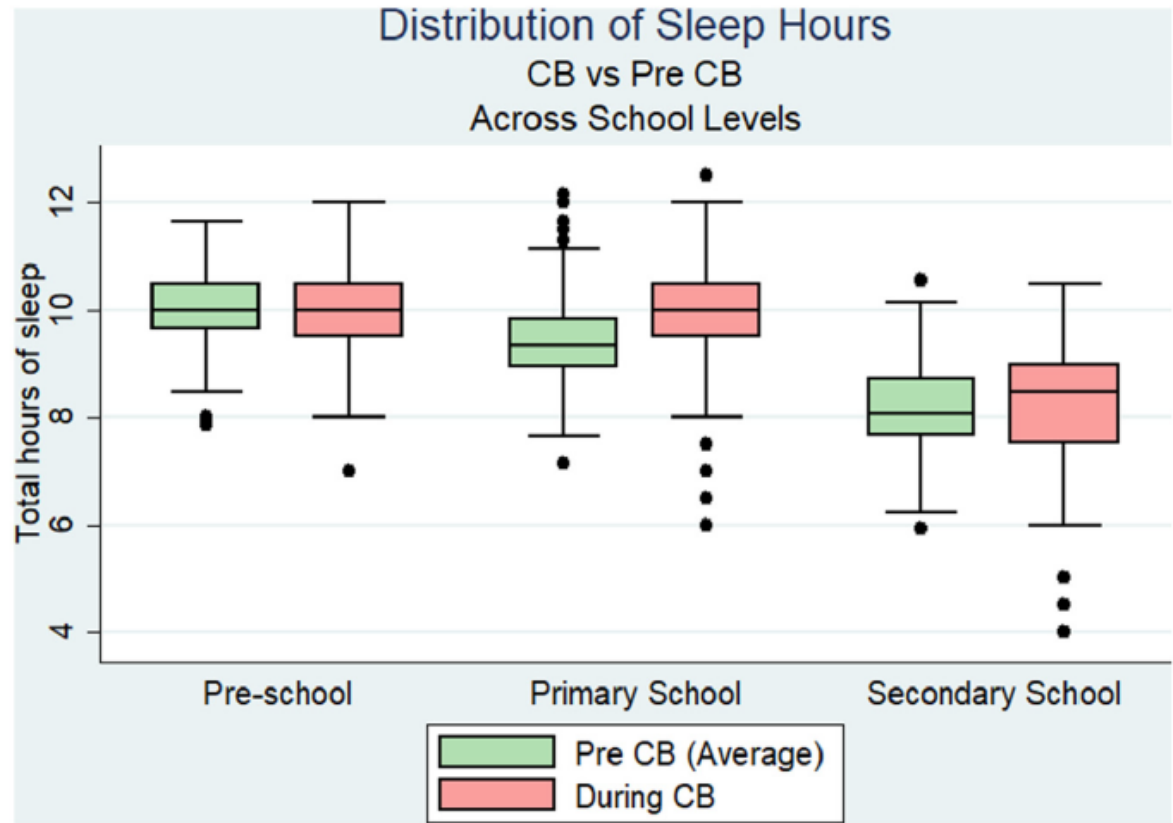


Sleep – children sleep more

Sleeping time increased by 39 min/day (SD 77 Min., $P = 0.003$, Pietrobelli et al. 2020)

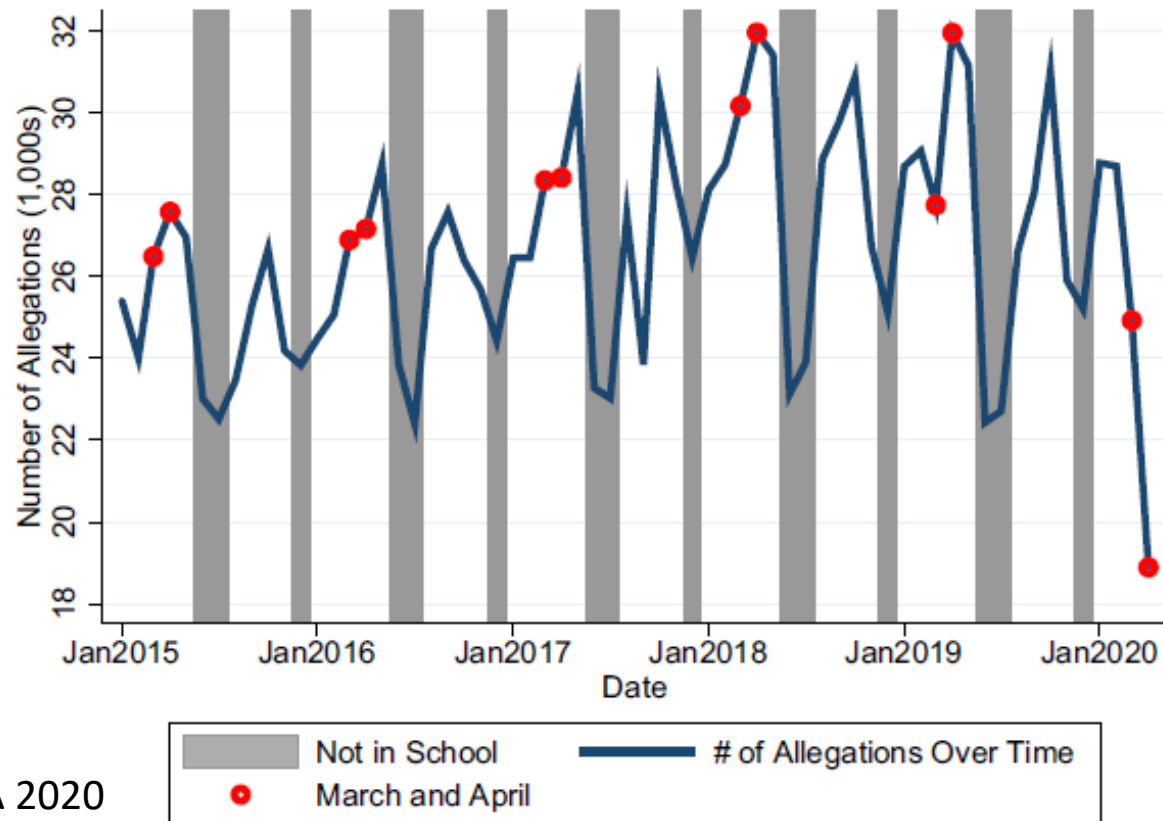
“Also, school closure could have reduced sleep deprivation, a risk factor for seizures.”

(Davico et al. 2020)



Lim et al.,2020

Abuse – “Suffering in Silence”



Baron et al. USA 2020

Garstang et al. UK 2020

Piquero et al. Dallas, USA 2020

Dapiq et al. Kroatien, 2020

Abuse allegations in Florida, Baron et al. 2020

Increase in mental health issues

Generalized anxiety increased in university students during the lock-down (Dratva et al. 2020)

Depressive symptoms in university students were three times as high in April and October 2020 compared to a matched sample in 2017 (31% in women, 27% in men; Volken et al. 2021)

Child and adolescent public health

must monitor health to react to secondary health impact and develop action plans based on national and international data and previous experience.

Example:

Young minds report 2021 UK:

1. Make wellbeing is a priority in school catch-up planning
2. Cautious approach to measures that could introduce additional pressure
3. Address the inconsistent mental health support available
4. Ensure economic survival of *locations&programs* that provide vital early mental health support.
5. Make sure that all young people know where and how to find support.

Additional literature

Nationaler Gesundheitsbericht 2020, Gesundheit in der Schweiz - Kinder, Jugendliche und junge Erwachsene <https://www.gesundheitsbericht.ch/de>

Dratva, J., S. Stronski and A. Chiolerio. 2018. "Towards a National Child and Adolescent Health Strategy in Switzerland: Strengthening Surveillance to Improve Prevention and Care." *Int J Public Health* 63(2):159-61. doi: 10.1007/s00038-017-1062-6.

Dratva, J., A. Zysset, N. Schlatter, A. von Wyl, M. Huber and T. Volken. 2020. "Swiss University Students' Risk Perception and General Anxiety During the Covid-19 Pandemic." *Int J Environ Res Public Health* 17(20). doi: 10.3390/ijerph17207433.

Jansen, D., S. Kosola, L. C. Arevalo, M. Gaspar de Matos, K. Boode, S. Saxena and J. Dratva. 2020. "Child and Adolescent Health Needs Attention Now, and in the Aftermath of the Covid-19 Pandemic." *Int J Public Health* 65(6):723-25. doi: 10.1007/s00038-020-01446-8.

Volken, T., A. Zysset, S. Amendola, A. Klein Swormink, M. Huber, A. von Wyl and J. Dratva. 2021. "Depressive Symptoms in Swiss University Students During the Covid-19 Pandemic and Its Correlates." *Int J Environ Res Public Health* 18(4). doi: 10.3390/ijerph18041458.

Rigby, M. J., L. I. Kohler, M. E. Blair and R. Metchler. 2003. "Child Health Indicators for Europe: A Priority for a Caring Society." *Eur J Public Health* 13(3 Suppl):38-46. doi: 10.1093/eurpub/13.suppl_1.38.