

Monitoring of physical fitness of all first graders in Basel-Stadt – the Sportcheck

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Project in cooperation with the Cantonal Office of Sport of
Basel-Stadt

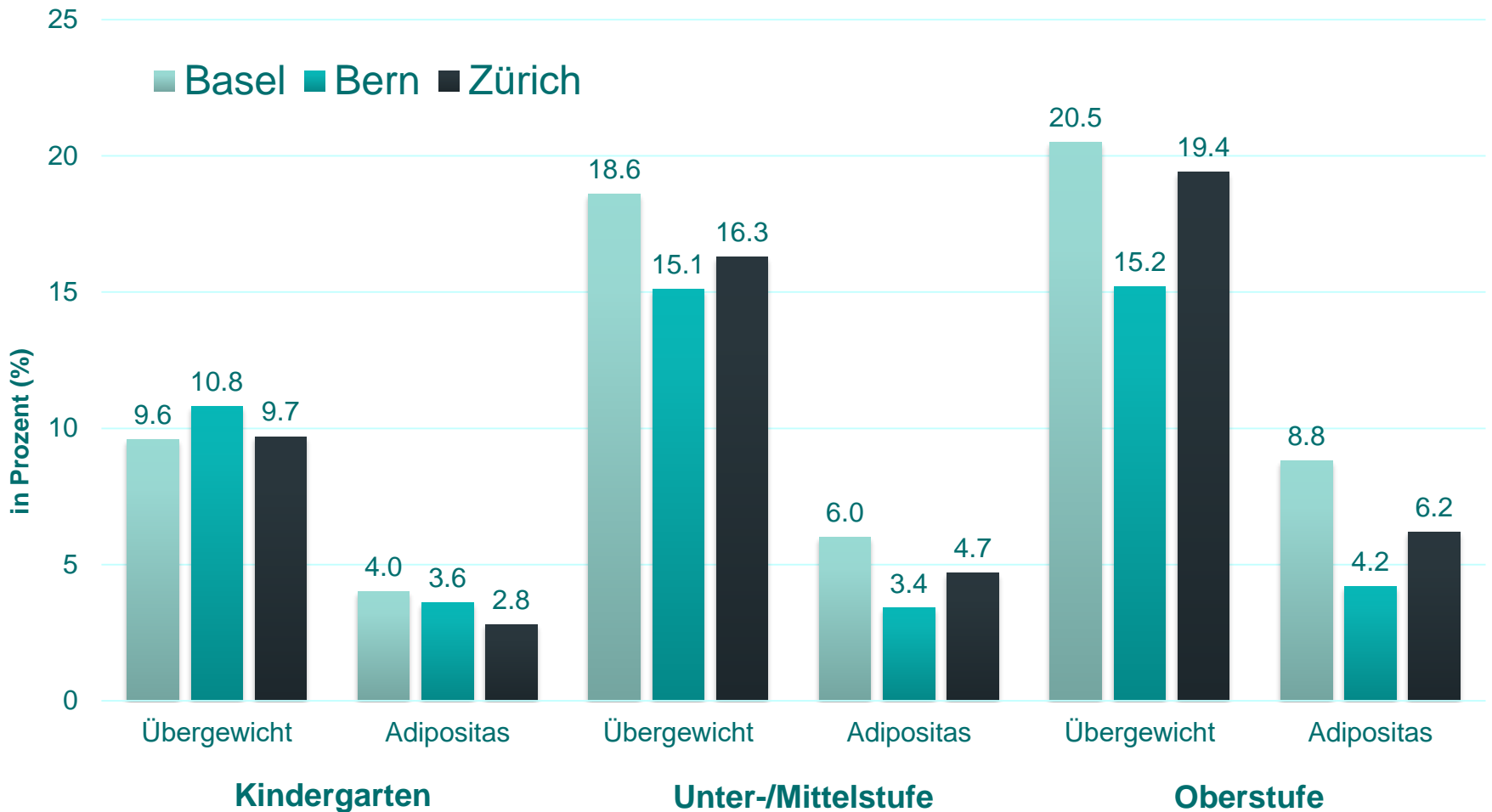
Scientific background

- 12.5% of the girls and 27.8% of the boys in Switzerland met the global physical activity recommendation of 60 minutes a day (Verloigne et al., *Int J Behav Nutr Phys Act*, 2012)
- 14% of the Swiss children (6-12 years) were overweight and 3.4% obese (Murer et al., *European Journal of Nutrition*, 2014)

Scientific background

- Overweight/Obesity and physical inactivity are risk factors for:
 - Cardiovascular disease (Janssen & Leblanc, *Int J Behav Nutr Phys Act*, 2010)
 - Orthopedic problems (i.e. back pain) (Shiri et al., *American Journal of Epidemiology*, 2010)

Overweight/Obesity in Swiss Cities



(mod. from Stamm et al., *Monitoring der Gewichtsdaten der schulärztlichen Dienste der Städte Basel, Bern und Zürich*, 2014)

Aims

1. a continuous monitoring of the physical fitness development and anthropometry of all first-graders of the canton Basel-Stadt
2. improving the classifications for the existing additional physical education lessons, offered in every school

Definition of additional physical education



- Includes all physical education lessons offered at school (in addition to the three mandatory lessons)
- Free for everybody, available for all pupils in Basel-Stadt
- As a fourth physical education lesson additional physical education contributes to an active lifestyle
- Integration of children with migrational background
- Cooperation between the Cantonal Office of Sports and the schools of Basel-Stadt

Additional physical education: Facts



Area-wide offer, takes place at all schools of Basel-Stadt

- 120 lessons with 110 instructors (~ 2200 pupils)
- School championships and events

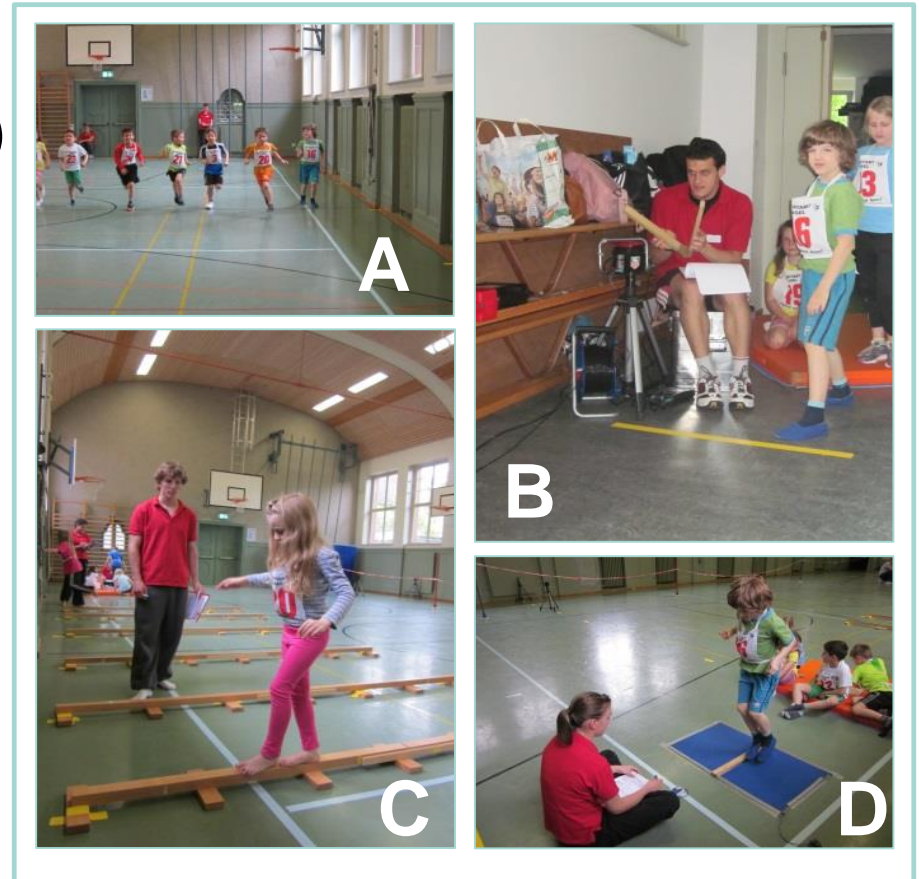


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Methods - Sportcheck

- 20m shuttle run (A)
- 20m sprint (B)
- Balancing backwards (C)
- Jumping sideways (D)
- Body weight
- Height
- Body fat



Baseline characteristics (2014-2017)

Parameter	N	Mean	SD
Age (y)	5429	7.3	0.4
Sex			
female	2695		
male	2734		
BMI (kg/m ²)	5418	16.2	2.4
Overweight	619	11.4%	
Obese	270	5.0%	
20m shuttle run (stages)	5256	3.7	1.5
20m sprint (sec)	5414	5.03	0.39
Jumping sideways (jumps)	5411	44.6	12.1
Balancing backwards (steps)	5402	35.5	13.9

Children's profit

- Test results
- Personalized recommendations and invitation for physical education
- Lots of fun

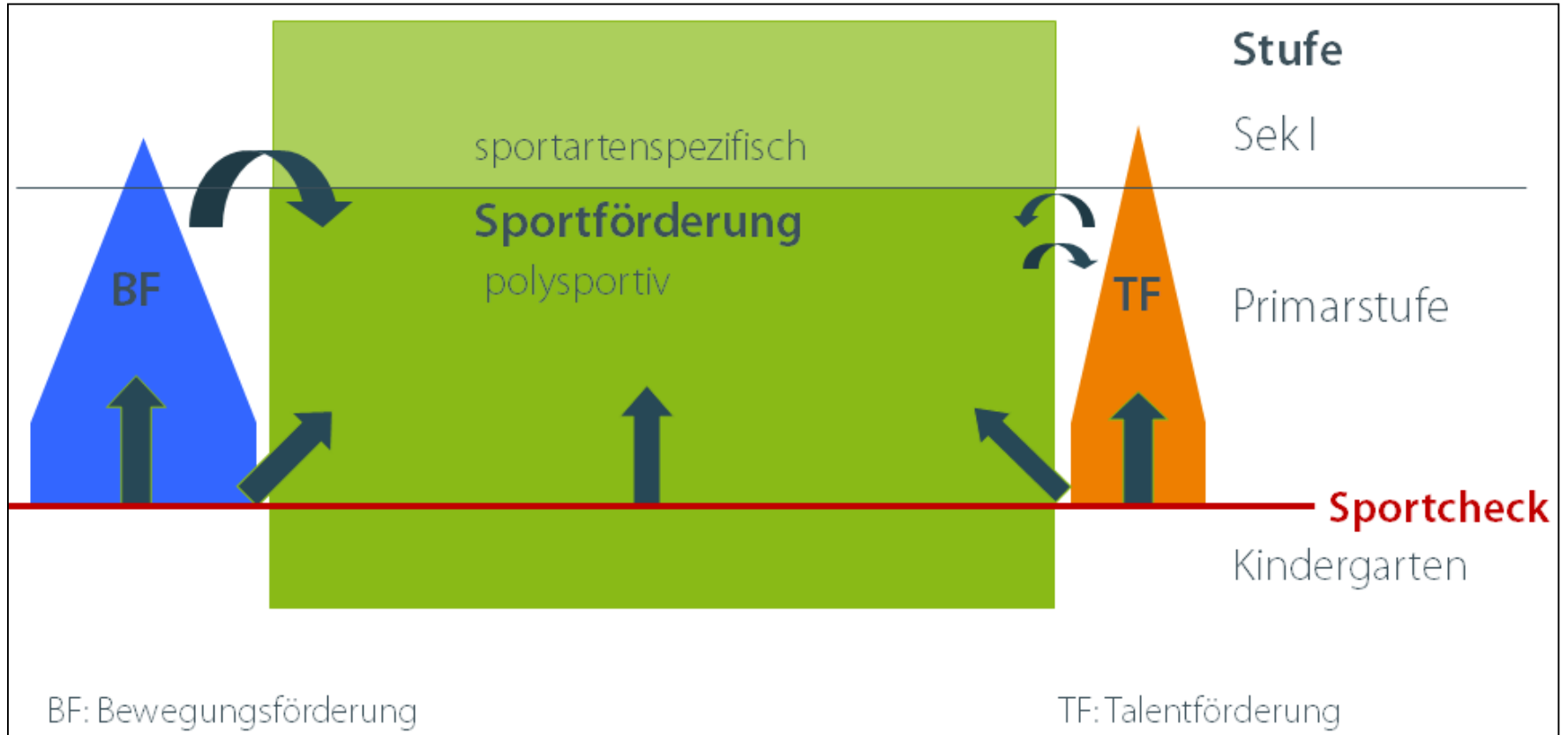
Teachers profit

- Test results of the class
- Recommendations for physical education
- Basis for parent-teacher conference concerning physical education
- Personal coaching if wanted
- Booklet: how to promote children's physical fitness

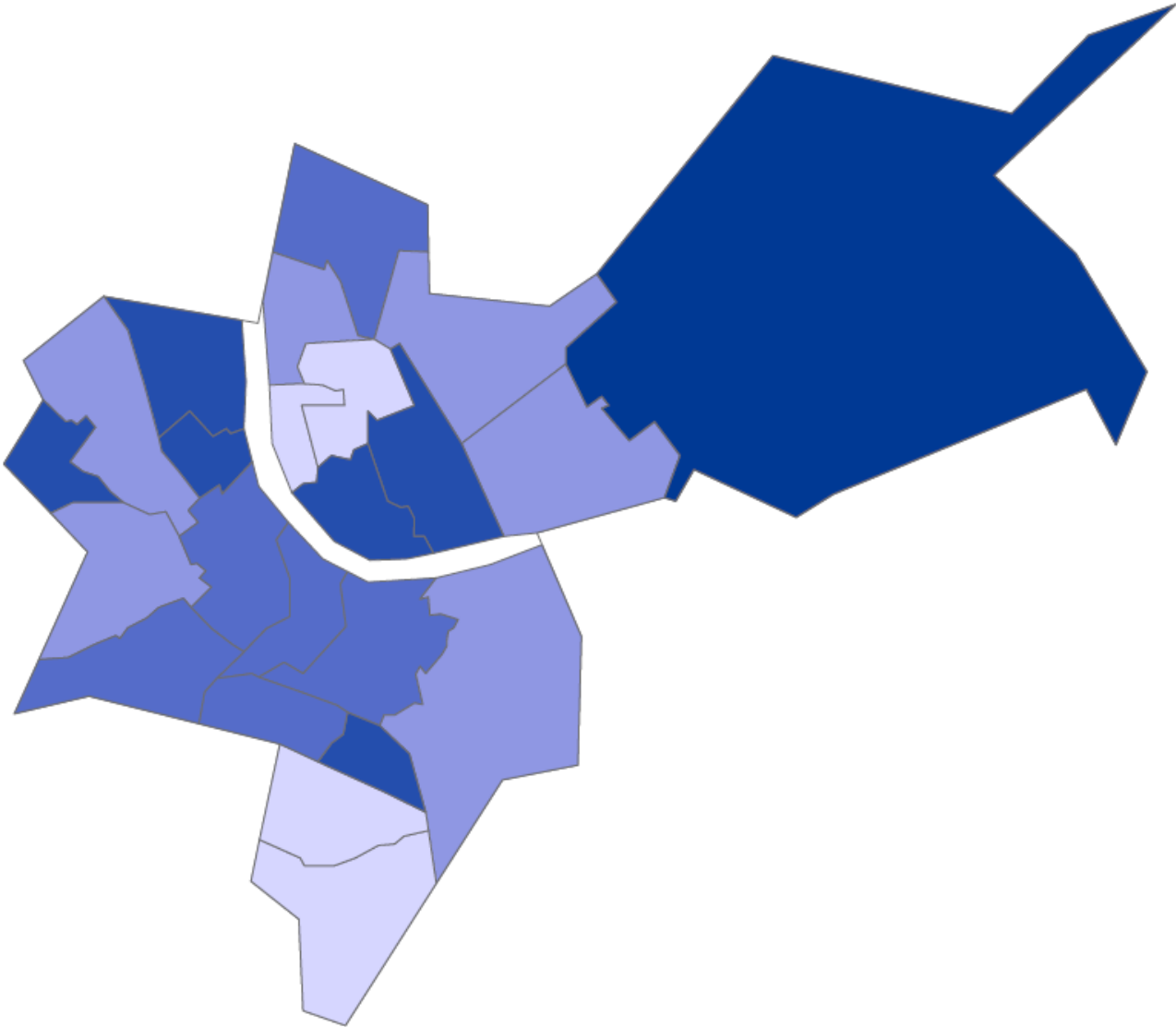
Consequences of the Sportcheck for the Cantonal Office of Sports

- Evidence-based promotion for sports
- Arguments to convince head of schools for the need of additional physical education
- Regulation of administration
- Individualized physical education
- Model of three columns (3-Säulenmodell)

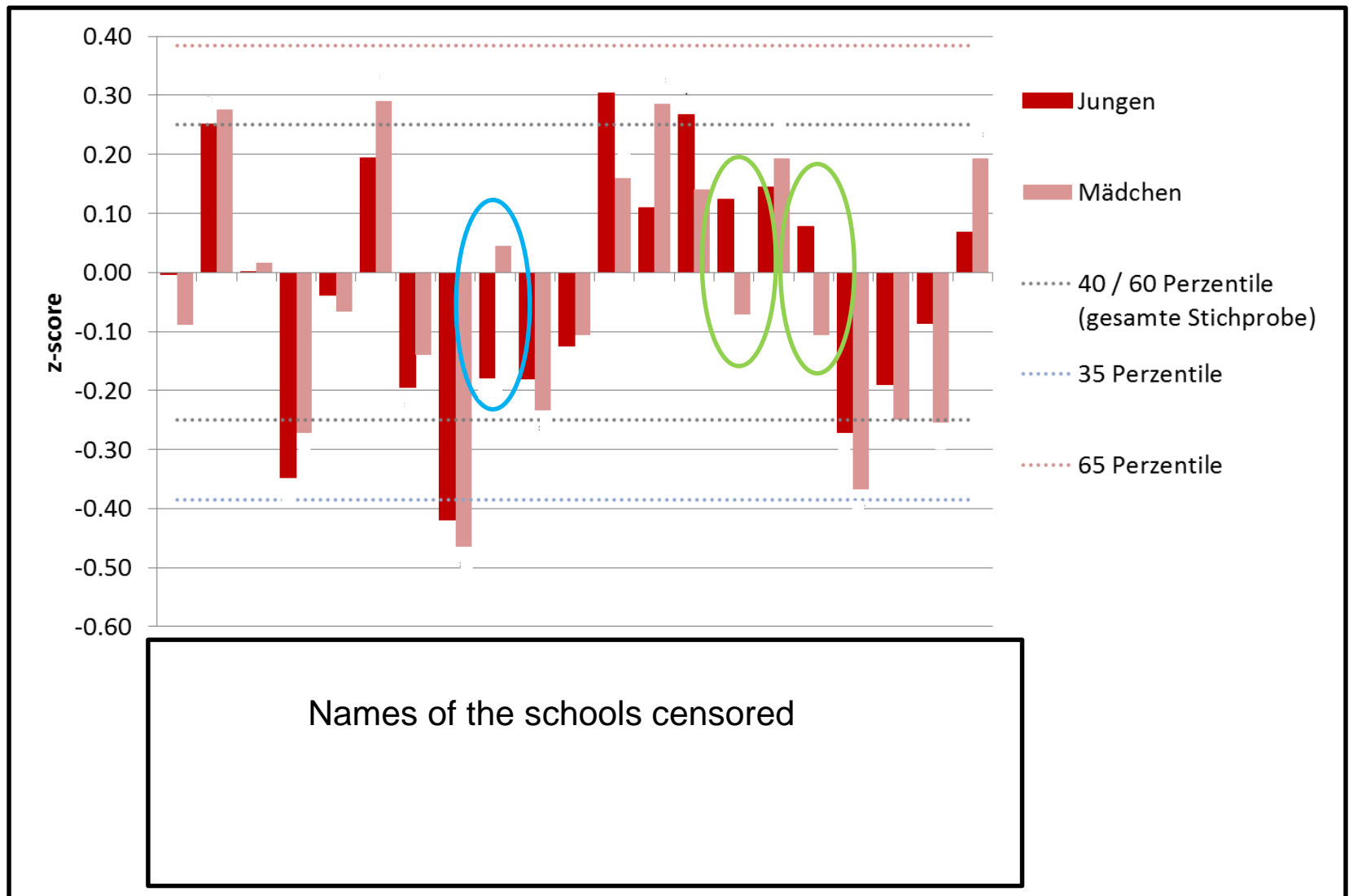
Additional physical education – 3 Säulenmodell



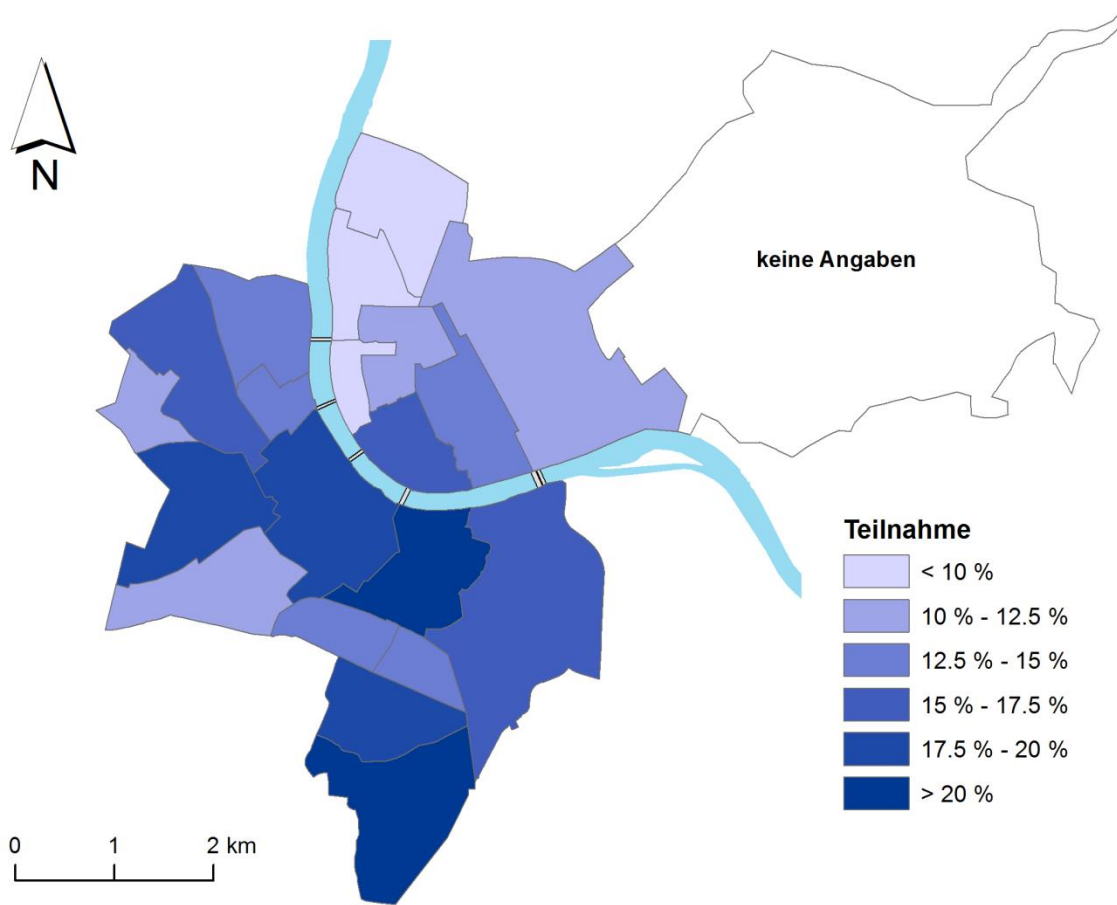
Maps (*exemplary*)



Sex differences



Participation additional sport lesson (Freiwilliger Schulsport)



Perspectives

- Additional medical measurements
- Secular trends
- Evaluation of additional physical education lessons
- Demand analysis
- Follow-up

Thank you for your attention.

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