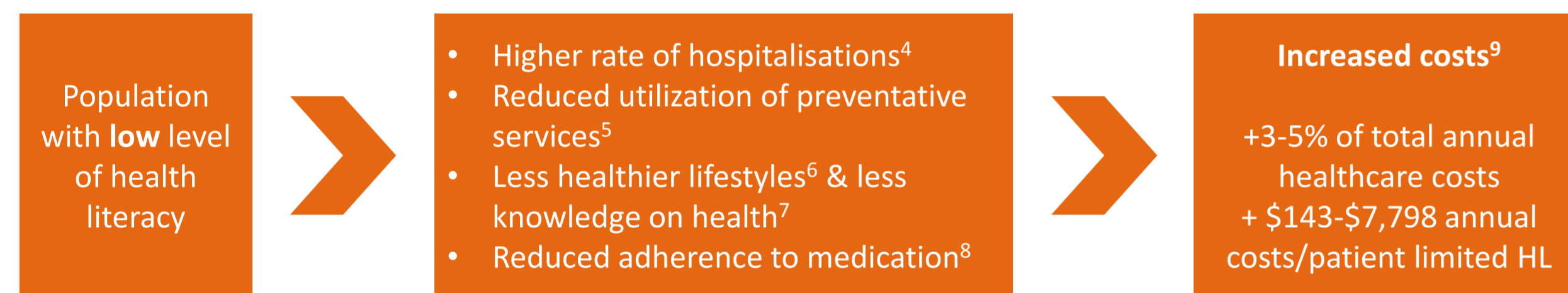


### Background

#### What is Health Literacy?

- Concept of health literacy first mentioned in 1974<sup>1</sup>
- Shift from medical towards public-health-driven understanding & from functional to interactive and critical level of health literacy<sup>2</sup>
- Myriad of definitions & lack of universal measurement instrument
- Systematic review of definitions by Sorensen et al. (2012)<sup>3</sup>:  
“Health Literacy is linked to literacy and entails people’s knowledge, motivation and competences to access, understand, appraise and apply health information in order to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course.”

#### Why Does Health Literacy Matter?



#### Why is it Important to Strengthen Health Literacy Already in Childhood?

- Health-related behavioural patterns proven to be formed already in children’s early years of life → hard to change later on<sup>10</sup>
- Supporting effect of health literacy on development of child’s abilities to understand health-related information & interact with healthcare system → improved outcomes in health at later point in time<sup>11</sup>
- Children to a certain extent responsible for their self care & constant interaction with health-related messages or interventions<sup>12</sup>

#### How is Europe & Austria Performing?

##### HLS-EU Study

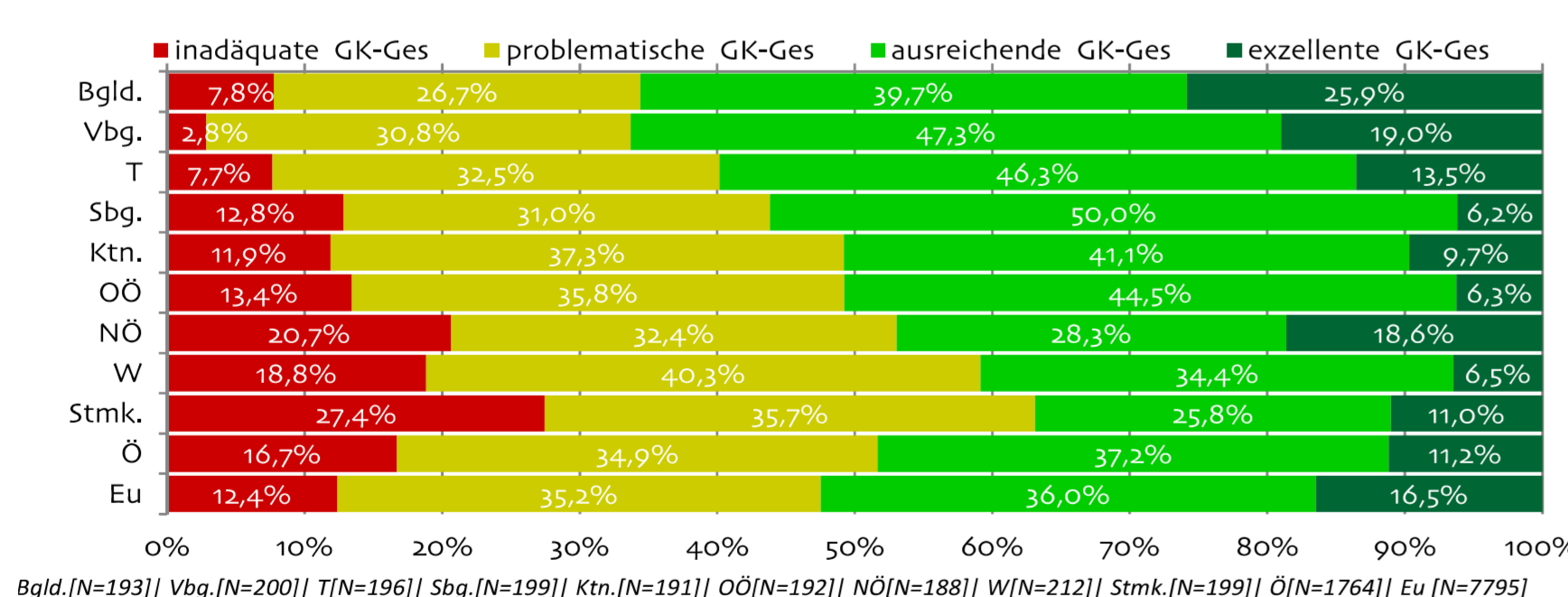
population with limited health literacy:

Europe<sup>13</sup>: 47.6%

Austria<sup>14</sup>: 51.6%

Adolescents(15y)<sup>15</sup>: 58%

No data on children!



### Research Questions

1. What is the level of health literacy of 4<sup>th</sup> grade students of public primary schools in Tyrol and Styria?
2. Do children, who exercise more frequently, have a higher level of health literacy?
3. Do children, who feel very healthy, have a higher level of health literacy?
4. What policy implications & recommendations for interventions within the school setting can be derived?

### Data & Methods

#### Sampling Design

- Target population: 4<sup>th</sup> grade students in public primary schools in Tyrol & Styria
- Proportionate stratified sampling (stratification variable: geographical setting)

#### Questionnaire

- Adapted version of questionnaire developed by HLCA research consortium (Uni Bielefeld), based on multidimensional model of HLS-EU study, suited for children aged 9 to 10
- Encompasses 49 items: health literacy core subsection, socio-demographic indicators, sources of health-related information, numeracy, self-reported health status, health behaviour

#### Investigation Period

- March 20<sup>th</sup>, 2017 – May 26<sup>th</sup>, 2017
- 1,089 surveys sent out postally – 568 returned → response rate: 52.2%

#### Statistical Analyses

Descriptive analyses - Logistic regression analysis - Development of HL indices

### Results

#### Description of Sample & Reliability

	Total sample		Tyrol		Styria	
	absolute	%	absolute	%	absolute	%
<b>Gender</b>						
female	299	52.6	151	52.1	148	53.2
male	269	47.4	139	47.9	130	46.8
<b>Age</b>						
8	11	1.9	7	2.4	4	1.4
9 or 10	521	91.7	262	90.3	259	93.2
11 or 12	36	6.4	21	7.3	15	5.4
<b>Sample Size</b>	<b>568</b>	<b>100</b>	<b>290</b>	<b>100</b>	<b>278</b>	<b>100</b>

Cronbach’s Alpha (CA) for General Health Literacy Index: **.920**

#### General Health Literacy Index

	Total sample		Tyrol		Styria	
	absolute	%	absolute	%	absolute	%
<b>Excellent Health Literacy</b>	244	<b>43.0</b>	128	<b>44.1</b>	116	<b>41.7</b>
<b>Sufficient Health Literacy</b>	259	<b>45.6</b>	124	<b>42.8</b>	135	<b>48.6</b>
<b>Limited Health Literacy</b>	56	<b>9.9</b>	32	<b>11.0</b>	24	<b>8.6</b>

**43%** of the students show an excellent level of health literacy, only around one tenth has limited health literacy.

### Results

#### Logistic Regression Analysis

	Odds Ratio	Sig.	95% CI for Exp(B)	
			Lower	Upper
<b>Frequency of physical exercise at least once a week (almost) daily</b>	1.614	.129	.870	2.993
<b>Self-perceived health status (rather) healthy very healthy</b>	1.314	.402	.693	2.491

Higher odds to have a ,sufficient or excellent level of health literacy’ for children:

- Exercising (almost) daily
- Feeling ,very healthy’

#### Descriptive Analyses on Items of Health Literacy Core Subsection

Items perceived to be the **hardest** ones for students:

- Assessing if one can believe the media when they are warning of health-related risks (32.1% Tyrol; 25.5% Styria)
- Understanding when & how medication needs to be taken (24.2% Tyrol)
- Finding out information on rhinitis, sore throat & cough (22.3% Styria)

Items perceived to be the **easiest** ones for students:

- Sticking to rules as learned in traffic education (92.8% Tyrol; 97.4% Styria)
- Deciding when hands need to be washed (92.7% Tyrol; 95% Styria),
- Finding out what food is healthy for oneself (91.4% Tyrol) & having a healthy diet (91.4% Styria)

### Practical & Policy Implications

- Study provides first data on health literacy of children in Austria
- Relevance for national policy makers in the fields of education and health
- Acknowledgment of school’s efforts in traffic education, hand hygiene & nutrition
- Recommendation to adapt primary school curriculum by e.g. a stronger integration of the topic of media health literacy or common disease patterns

### Limitations

- Children’s subjective perceptions are dependent on their own health-related experiences
- Interpretation of results with caution: health knowledge is not measured!

### Future Research Outlook

- Identification of type of health literacy most closely linked to health outcomes among children
- Repeated participation in health literacy surveys
- Determination of turning point (age) of deteriorating health literacy results