

Table S4. Final concept of the tool

Page	Goal	Content	Methodical strategy	Motivation strategies	Material
Home Page (HP)		<ul style="list-style-type: none"> Objective and structure of the tool are explained 		<ul style="list-style-type: none"> Objectives of the tool are presented (C, S) 	
Problem situation (PS1)	<p>After completing the web-based tool, participants will be able to:</p> <ul style="list-style-type: none"> Interpret risk reductions and describe the importance of correct interpretation 	<ul style="list-style-type: none"> Participants are faced with the problem of choosing from two price-reduced yoghurts the product with the largest absolute price reduction. 	<ul style="list-style-type: none"> Problem situation with an example from everyday life Interactive quiz followed by an explanation 	<ul style="list-style-type: none"> Awareness for the subject through a simple, plausible everyday problem (A, R, C) Illustrating the problem (A) Positive feedback (S) (Unknown) gaps in knowledge are revealed through the problem. (R; C) 	<ul style="list-style-type: none"> Illustration

(A) Attention; (R) Relevance; (C) Confidence; (S) Satisfaction

Table S6. Continued

Page	Goal	Content	Methodical strategy	Motivation strategies	Material
Problem situation (PS2)	<ul style="list-style-type: none"> Interpret risk reductions and describe the importance of correct interpretation 	<ul style="list-style-type: none"> Transition from an everyday situation to a health-related situation Participants are asked to decide on one of two unspecified screening examinations. The same examination is shown with absolute and relative risk reduction. Solution follows after the decision. 	<ul style="list-style-type: none"> Problem situation with a health-related reference Interactive quiz followed by an explanation 	<ul style="list-style-type: none"> Transition from an everyday problem to a generally understandable medical problem (A, R) Working through the problem with interactive elements involving the learners; with positive feedback and solution (A; R; C) (Unknown) gaps in knowledge are revealed through the problem. (R; C) 	<ul style="list-style-type: none"> Illustration

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Table S6. Continued

Page	Goal	Content	Methodical strategy	Motivation strategies	Material
Initial situation (IS)	<ul style="list-style-type: none"> Interpret risk reductions and describe the importance of correct interpretation 	<ul style="list-style-type: none"> Early detection examination is introduced as an example. Presentation of RCT findings 	<ul style="list-style-type: none"> Problem situation with health-related reference is continued. Pictogram shows procedure of an RCT and the event rates in the intervention and control groups. 	<ul style="list-style-type: none"> Generally understandable medical problem with relevance for the participants (A, R) Illustration (A) 	<ul style="list-style-type: none"> Pictogram
Absolute risk reduction (ARR)	<ul style="list-style-type: none"> Interpret risk reductions and describe the importance of correct interpretation Calculate the absolute risk reduction 	<ul style="list-style-type: none"> Calculation of the absolute risk reduction using a pictogram Showing the formula for the calculation 	<ul style="list-style-type: none"> Problem situation with health-related reference is continued. Graphical presentation is supplemented by mathematical representation. 	<ul style="list-style-type: none"> Solutions are described verbally in a simplified way and presented using mathematical formulae for different requirements of the participants (R, C) Illustration (A) 	<ul style="list-style-type: none"> Pictogram Memory box

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Table S6. Continued

Page	Goal	Content	Methodical strategy	Motivation strategies	Material
Relative risk reduction (RRR)	<ul style="list-style-type: none"> Interpret risk reductions and describe the importance of correct interpretation Calculate the relative risk reduction 	<ul style="list-style-type: none"> Calculation of the relative risk reduction using a pictogram Showing the formula for the calculation 	<ul style="list-style-type: none"> Problem situation with health-related reference is continued. Graphical presentation is supplemented by mathematical representation. 	<ul style="list-style-type: none"> Solutions are described verbally in a simplified way and presented using mathematical formulae for different requirements of the participants (R, C) Illustration (A) 	<ul style="list-style-type: none"> Pictogram Memory box

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Table S6. Continued

Page	Goal	Content	Methodical strategy	Motivation strategies	Material
Test your knowledge (TYK)	<ul style="list-style-type: none"> Calculate the absolute risk reduction Calculate the relative risk reduction 	<ul style="list-style-type: none"> Checking knowledge on the calculation of absolute and relative risk reduction using an identically constructed fictitious case study. 	<ul style="list-style-type: none"> Fictitious problem with a reference group of 100 people for easy calculation is introduced. Possibility for checking and correction. 	<ul style="list-style-type: none"> Assistance can be optionally blended in (C, S) Possibility for checking and correction (S) 	<ul style="list-style-type: none"> Pictogram Calculation dialog box
Conclusion (C)	<ul style="list-style-type: none"> Interpret risk reductions and describe the importance of correct interpretation 	<ul style="list-style-type: none"> Hints for the interpretation of the risk reduction are given. Links to pages for more in-depth information on early detection examinations and another example on the topic of nutrition. 	<ul style="list-style-type: none"> Summary in key words for a quick overview 	<ul style="list-style-type: none"> Translation of the imparted knowledge into short notes for use in own problem situations (R, C) 	<ul style="list-style-type: none"> Memory box

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Table S6. Continued

Page	Goal	Content	Methodical strategy	Motivation strategies	Material
Baseline risk (BS)	<ul style="list-style-type: none"> Calculate the absolute risk reduction. Calculate the relative risk reduction. Interpret the impact of the baseline risk on absolute risk reduction by comparing the absolute risks at high and low baseline risks. 	<ul style="list-style-type: none"> Influence of the baseline risk on the absolute risk reduction using the example of statins for the prevention of a heart attack. Calculation of the absolute and relative risk reduction with high and low baseline risk and comparison of the absolute and relative risk reduction. 	<ul style="list-style-type: none"> Simplifying complex problem situations. Change in absolute risk reduction with different baseline risk is illustrated by own calculations. 	<ul style="list-style-type: none"> Assistance can be optionally blended in (C, S) Possibility for checking and correction (S) Illustration (A) 	<ul style="list-style-type: none"> Pictogram Calculation dialog box

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Table S6. Continued

Page	Goal	Content	Methodical strategy	Motivation strategies	Material
Additional exercises (AE)	<ul style="list-style-type: none"> Calculate the absolute risk reduction. Calculate the relative risk reduction. Analyse the relative risk reduction of a real case study by calculating the event rates and deriving the absolute risk reduction from them. 	<ul style="list-style-type: none"> Three exercises with increasing stages of difficulty Exercise 1: Different group sizes and calculation of the event rates Exercise 2: Presentation in a table and introduction of the terms intervention group and control group. Exercise 3: Calculation of the absolute risk reduction based on a real case study. 	<ul style="list-style-type: none"> Difficulty of the exercises is increased stepwise Difficulties of the exercises are described in the selection. 	<ul style="list-style-type: none"> Exercise with a real example (A, R) Assistance can be optionally blended in (C, S) Possibility for checking and correction (S) The difficulty level is recognizable for the participants. (C, S) Illustration (A) 	<ul style="list-style-type: none"> Real case study Calculation dialog box

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