

Evaluation of effectiveness of “Unplugged” in Slovenia: a non-randomized controlled trial



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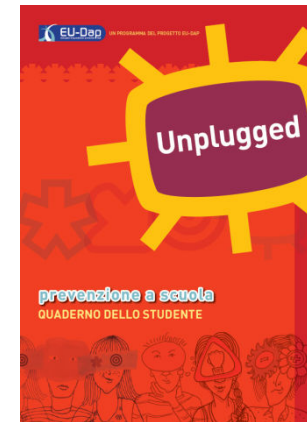


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Unplugged

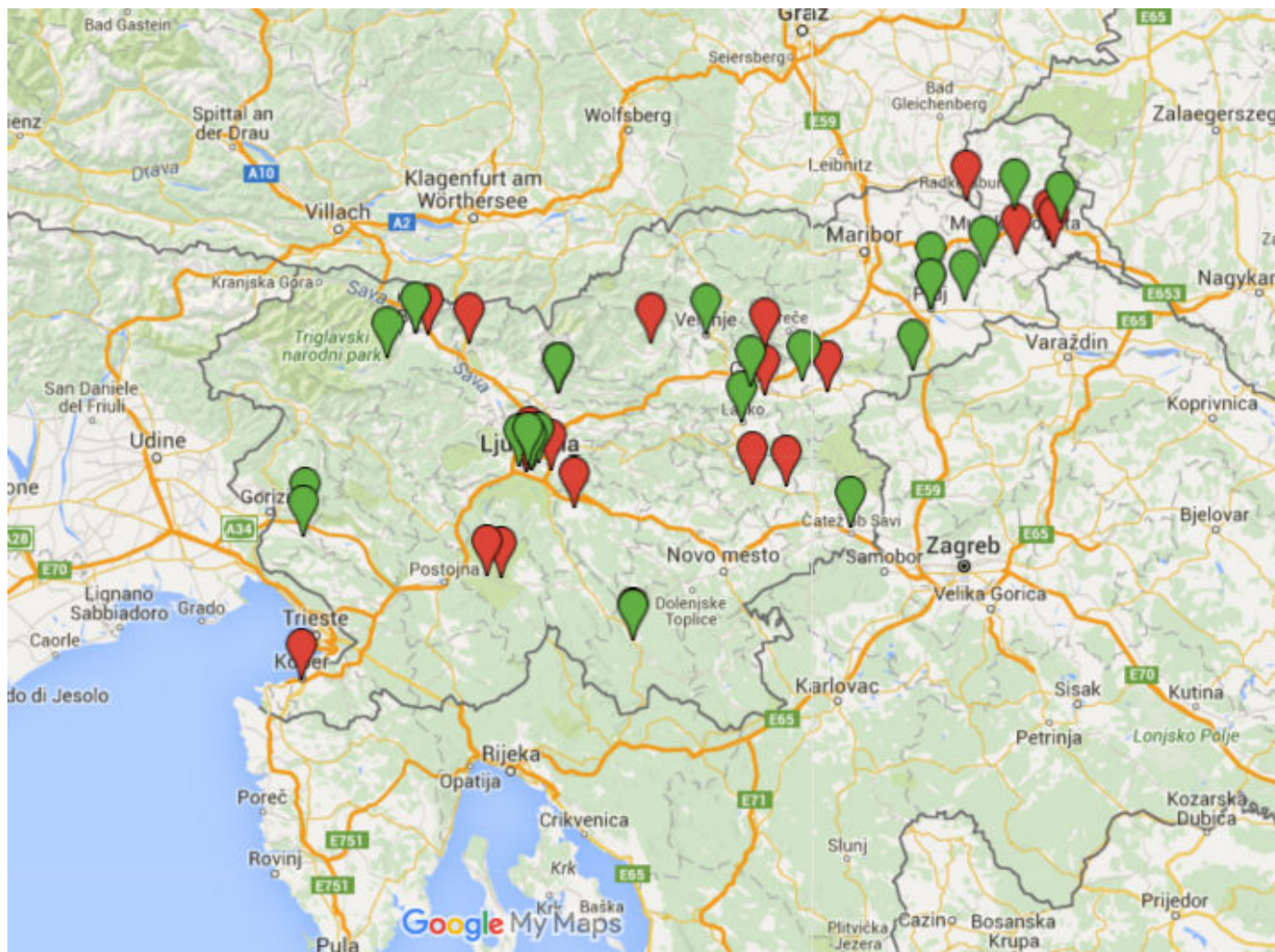
- Universal school-based program for preventing **tobacco**, **substance use** and **alcohol abuse** among adolescents
- Based on **social influence** approach
- It includes the following components
 - Social skills
 - Personal skills
 - Knowledge
 - Normative education
- It is administered by **teachers** trained in a 3-days course
- It is made by **12 units**, 1 hour each
- It is designed for **12-14 years old** students
- It was tested in the EU-Dap **randomized controlled trial** in 7 European countries in 2004-2007 school years



The evaluation study in Slovenia

- In Slovenia, the Institute for Research and Development UTRIP with the collaboration of OED Institute in Torino, organized the evaluation and implementation of Unplugged during the school year 2010-2011
- **designed as a NON-randomized controlled study**
- **47 schools accepted to participate in the evaluation study**

Geographical distribution of schools



- **Green: control schools**
- **Red: intervention schools**

Sample of schools and classes

INTERVENTION ARM

25 available schools, 2 dropped out (before baseline)
23 baseline schools, 2 dropped out (before follow-up)
21 schools: analysis sample (matched)

88 available classes, 13 dropped out (before baseline)
75 baseline classes, 10 dropped out (before follow-up)
65 classes: analysis sample (matched)

CONTROL ARM

22 available schools
22 baseline schools, 2 dropped out (before follow-up)
20 schools: analysis sample (matched)

88 available classes, 8 dropped out (before baseline)
80 baseline classes, 11 dropped out (before follow-up)
69 classes: analysis sample (matched)

The analysis sample

- **2937** students (1422 of 23 intervention schools and 1515 of 22 control schools) participated in the **baseline survey** (October-November 2010)
- **Unplugged** was administered between November 2010 and March 2011 in the intervention arm
- 2475 (84%) students (1203 of intervention schools and 1272 of control schools) participated in the **follow-up survey** (May 2011)
- **2218** (75%) questionnaires were finally available for effectiveness analysis
 - 1062 -74.6%- intervention schools
 - 1156 -76.3%- control schools

Prevalence of use at baseline, N=2937

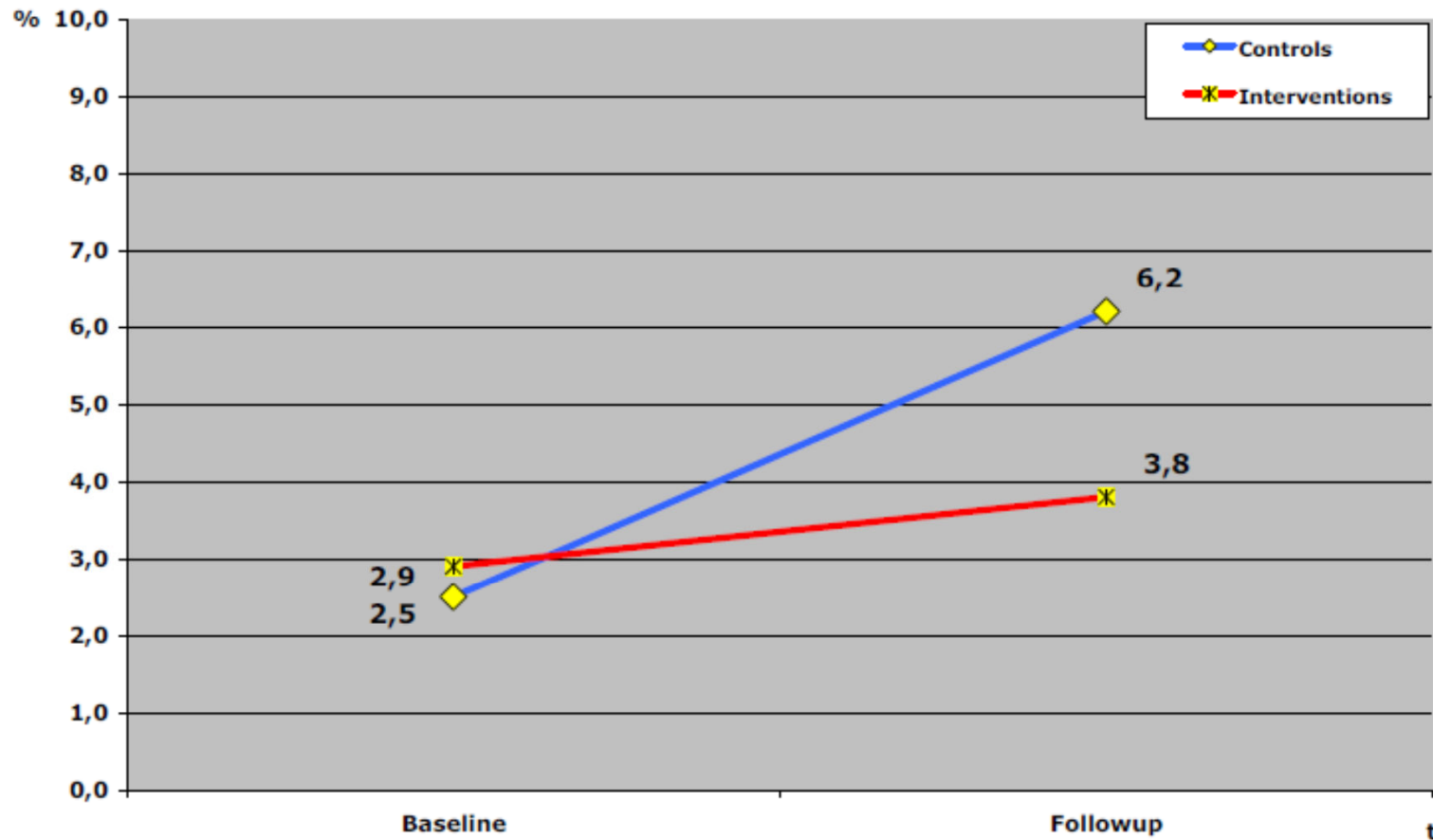
	Intervention %	Control %	Overall %
Lifetime			
ALO smoking	17.8	17.9	17.9
ALO drinking	59.0	58.9	59.0
ALO drunkenness	16.2	13.8	15.0
ALO cannabis	1.7	2.5	2.1
ALO other drugs	0.7	1.1	0.9
Last 30 days			
ALO smoking	3.0	2.5	2.8
ALO drinking	24.7	26.5	25.7
Regular drinking	3.1	4.3	3.7
ALO drunkenness	4.2	4.4	4.3
Regular drunkenness	0.7	1.0	0.8
ALO cannabis	0.3	0.7	0.5

Prevalence of use by gender

Last 30 days	Males %	Females %
ALO smoking	3.1	2.4
Regular smoking	1.1	0.4
Daily smoking	0.5	0.3
ALO drinking	28.8	22.5
Regular drinking	4.1	3.2
Daily drinking	0.8	0.6
ALO drunkenness	4.8	3.9
Regular drunkenness	0.9	0.8
ALO cannabis	0.5	0.6
Regular cannabis	0.3	0.5
ALO drugs	0.5	0.3

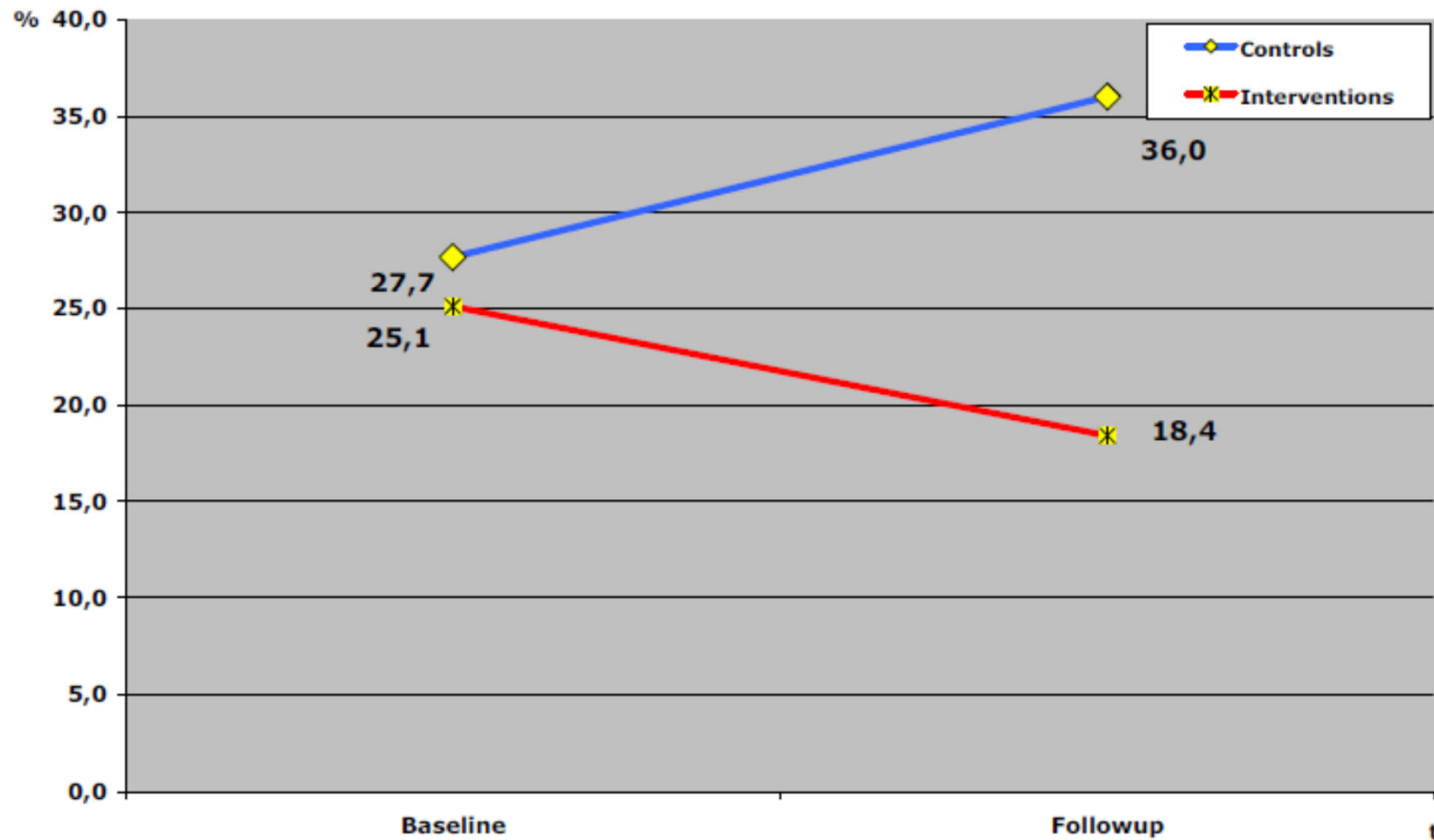
Unadjusted effect: ALO smoking

At least once in the last 30 days



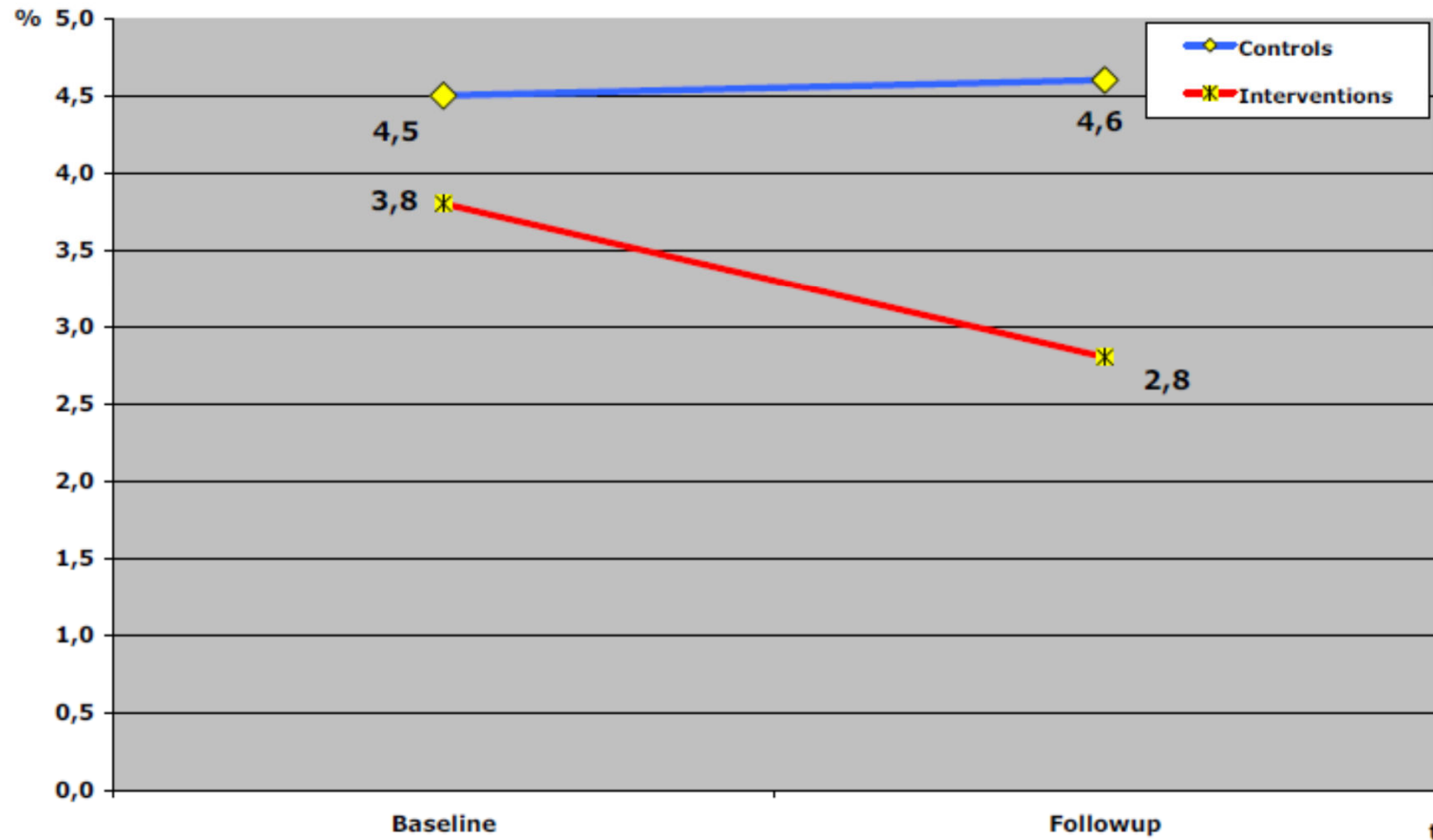
Unadjusted effect: ALO drinking

At least once in the last 30 days



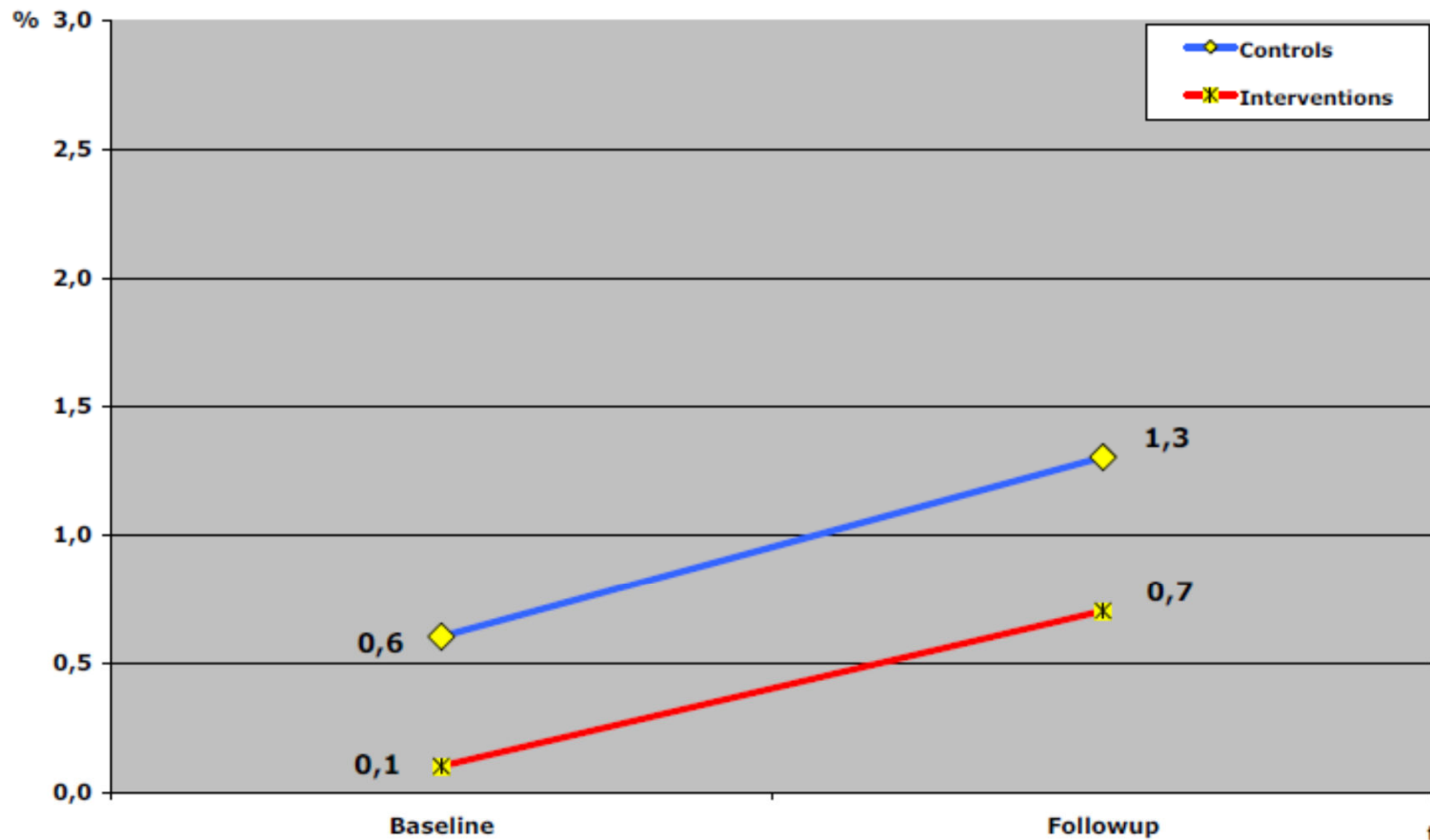
Unadjusted effect: ALO drunkenness

At least once in the last 30 days



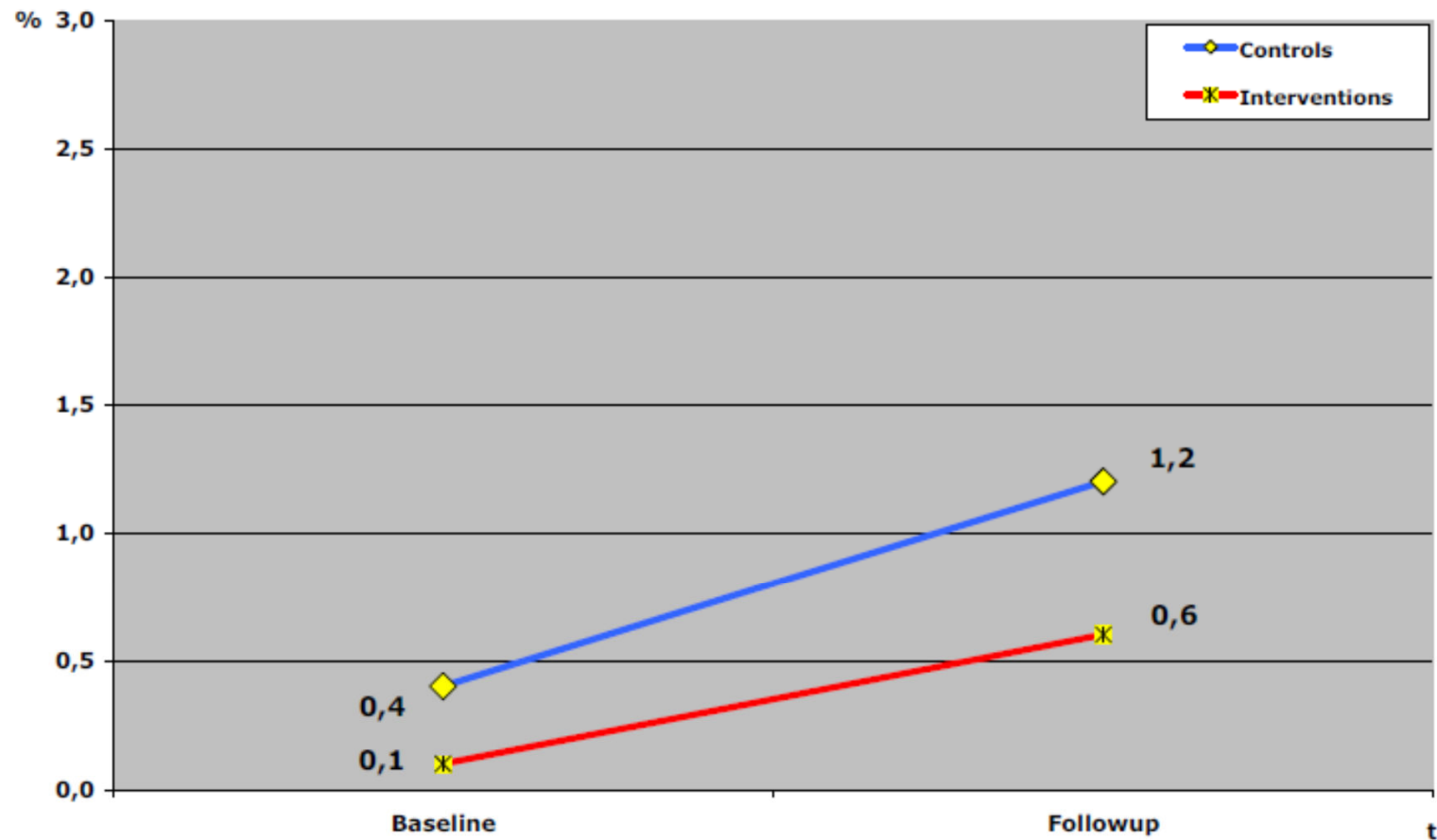
Unadjusted effect: ALO cannabis

At least once in the last 30 days



Unadjusted effect: ALO drugs

At least once in the last 30 days



Intervention effect vs control: Adj model

adj for baseline indicator, gender, age, father education level,
school SES, cluster (class)

Last 30 days	Adj OR	95% IC	P value	Risk Reduction
ALO smoking	0.55	0.30-0.99	0.047	-45%
Regular smoking	0.21	0.07-0.63	0.005	-79%
Daily smoking	0.13	0.03-0.64	0.012	-87%
ALO drinking	0.35	0.24-0.52	0.000	-65%
Regular drinking	0.44	0.22-0.89	0.022	-56%
Daily drinking	0.55	0.21-1.44	0.223	
ALO drunkenness	0.52	0.30-0.89	0.019	-48%
Regular drunkenness	0.58	0.21-1.58	0.287	
ALO cannabis	0.53	0.19-1.48	0.229	
Regular cannabis	0.49	0.14-1.75	0.271	
ALO drugs	0.41	0.15-1.08	0.070	

Effectiveness on intentions and skills

adj for baseline indicator, gender, age, father education level,
school SES, cluster (class)

Intentions in next year	Adj OR	95% IC	P value	Risk Reduction
smoke cigarettes	0.26	0.17-0.42	0.000	-74%
drink alcoholic beverages	0.31	0.21-0.44	0.000	-69%
get drunk	0.18	0.10-0.30	0.000	-82%
smoke marijuana or hashish	0.44	0.20-0.93	0.031	-56%
take other illegal substances	0.50	0.27-0.92	0.026	-50%
Refusal skills				Improvement
Towards cigarettes	2.82	1.71-4.65	0.000	+182%
Towards alcohol	4.64	3.09-6.98	0.000	+364%
Towards cannabis	2.72	1.72-4.29	0.000	+172%

Conclusions

- In the Slovenia evaluation study, the Unplugged program was effective in reducing the prevalence of use of **cigarette smoking, alcohol use, and drunkenness episodes**
- with reduction of prevalence in the intervention vs control pupils of **45-87%**
- It reduced **intentions to use** in the next year, with reductions **50-82%**
- it improved **refusal skills towards cigarettes, alcohol and cannabis**
- Mechanisms of effect (mediation analysis) of the program should be studied
- The results **confirm** those of previous studies and **add evidence** to recommend Unplugged as effective prevention program

Thanks for your attention!