

PRISM-Ado

évaluation randomisée contrôlée en grappe d'une formation
des médecins de premier recours

PD Dr Dagmar HALLER

Unité de Médecine de Premier Recours (UMPR), UNIGE

Unité Santé Jeunes, HUG



Unité Santé Jeunes

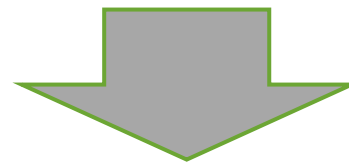


Outline

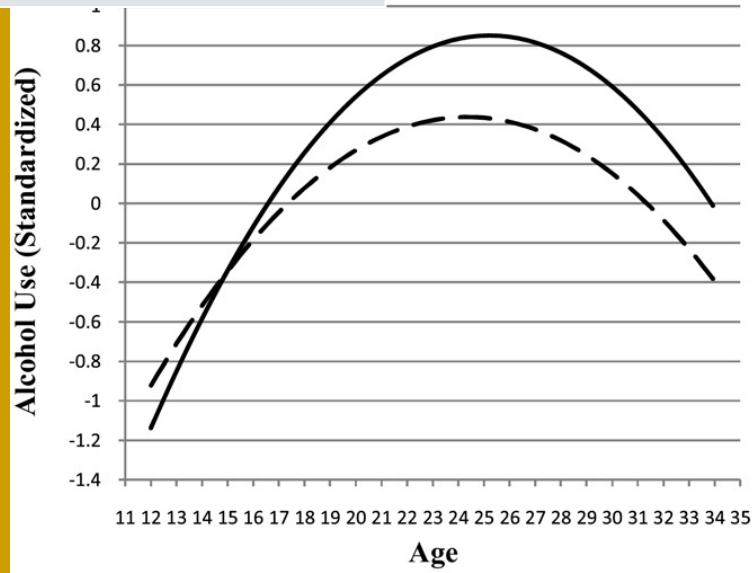
- PRISM-Ado: main study & results
- Other contributions to health services research through this study
- Conclusions
- NB: « adolescents »: 10-24 years (sharing similar developmental tasks)

Background

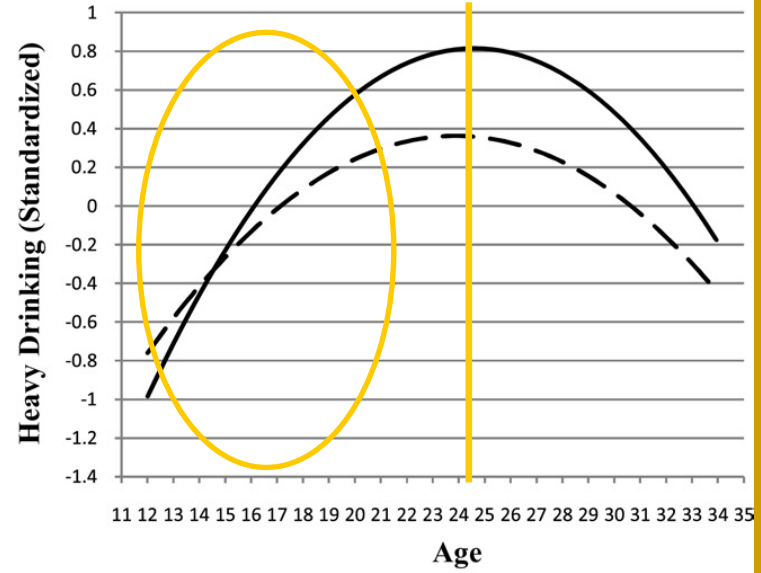
- **Binge drinking** at least once in past month:
 - ESPAD 2007 _ 16 years old -> **Males** 48%
Females 30%
 - HBSC 2010 _ 15 years old -> **Males** 33%
Females 24%
- (< legal age for access to alcohol!!)
- **Cannabis use** at least once before:
 - HBSC 2010 _ 15 years old -> **Males** 35%
Females 24%



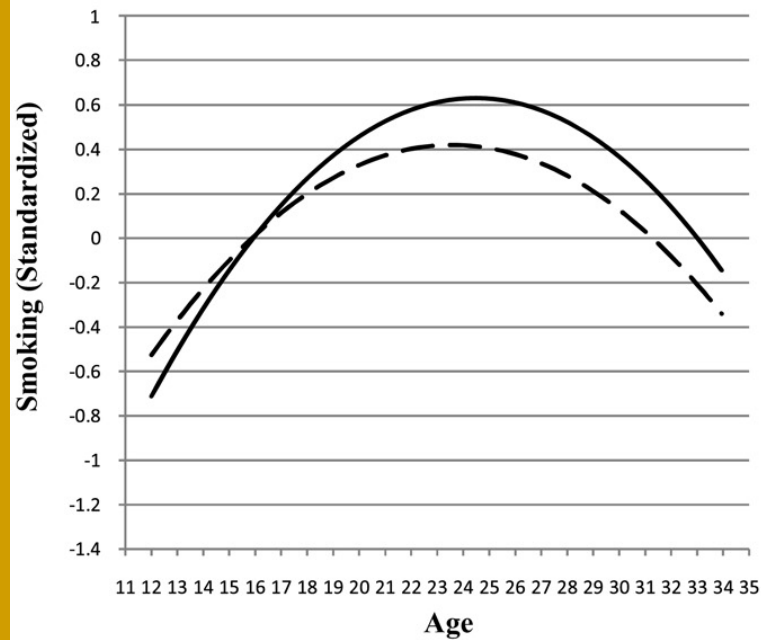
**Substance use is frequent in adolescence
and begins at a young age**



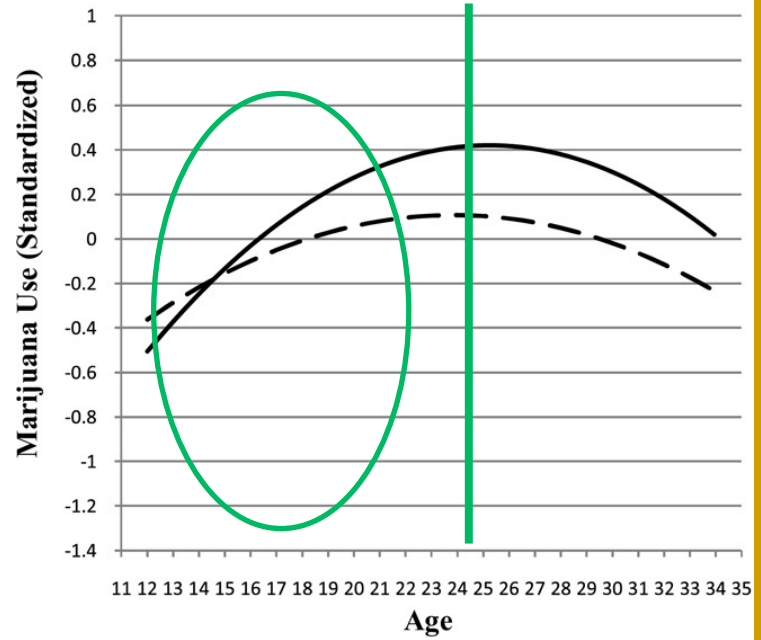
A. Alcohol Use



B. Heavy Drinking



C. Smoking



D. Marijuana Use

— Males - - - Females

Vulnerable young people are in contact with family doctors

- Proportion of young people seeing a family doctor at least once a year similar (>75%) if
 - **tobacco** use
 - excessive **substance** use
 - **sexual risk** taking
 - previous **suicide** attempt
 - previous **violence** or **delinquency**

Haller DM, Michaud PA, Suris JC, Jeannin A, Narring F.
Opportunities for prevention in primary care in a country with universal
insurance coverage.

Journal of Adolescent Health 2008; **43**: 517-19

Brief intervention delivered by primary care physician

- -> approx 15% reduction in excessive alcohol use in adults
- By extension-> advised to address excessive substance use in adolescents
- But to date no evidence that this is truly effective!



- Bertholet N et al. *Arch Intern Med* 2005
- Kaner EF et al. *Drug Alcohol Rev* 2009
- Whitlock EP et al. *Ann Intern Med* 2004
 - Moyer A et al. *Addiction* 2002
- Toumbourou JW et al. *Lancet* 2007

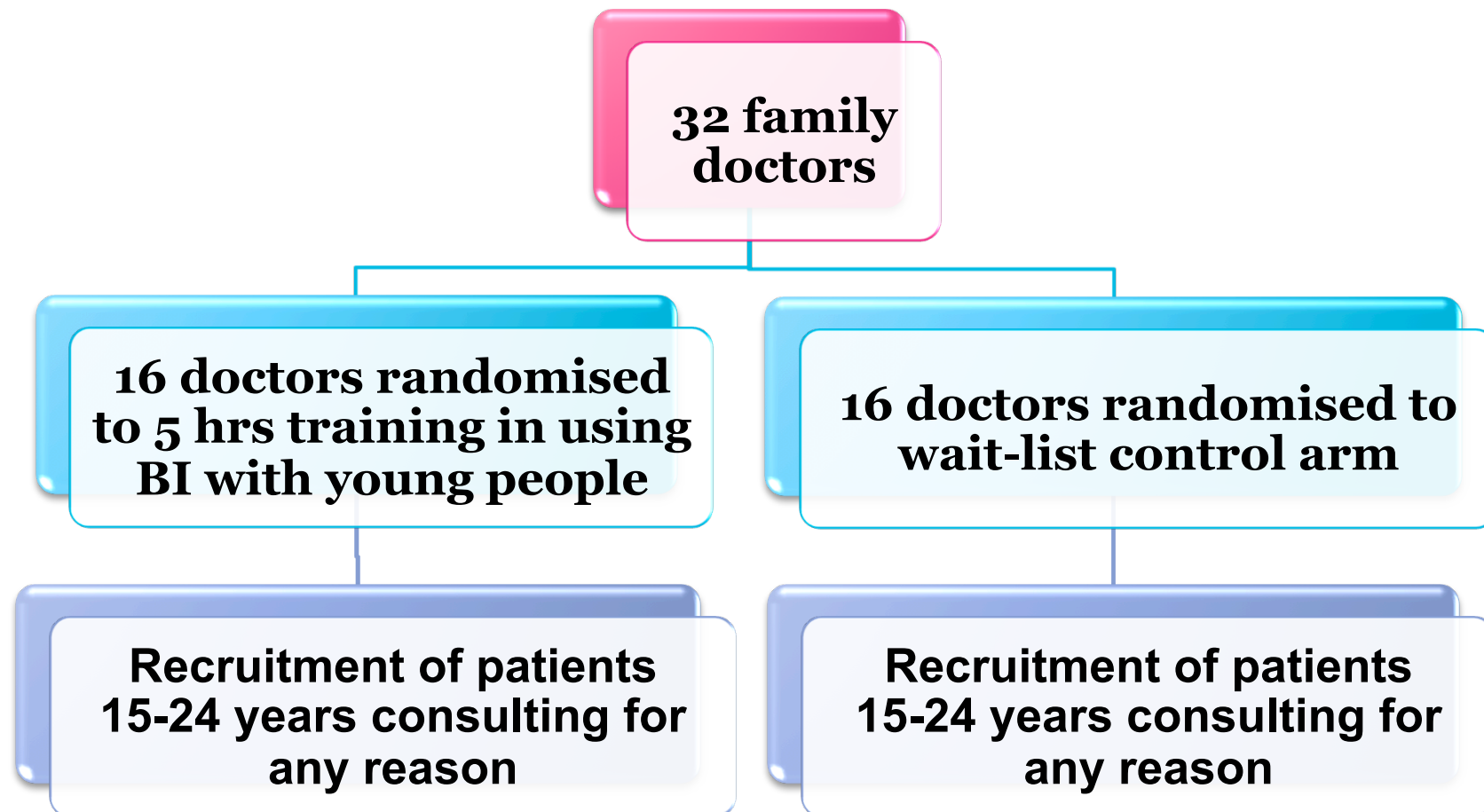
PRISM-Ado_objective

(Primary care Intervention addressing Substance Misuse in Adolescents)

- To assess the effectiveness of **training family doctors to deliver a brief intervention** addressing binge drinking and/or excessive cannabis use in young people



Cluster randomised trial in 32 family medicine practices in French-speaking part of Switzerland



Recruitment of young people at reception



Consultation

PRISM-Ado: procedure



BASELINE



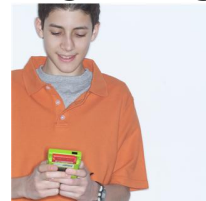
Questionnaire about health and substance use BEFORE consultation

3 MONTHS



Questionnaire via PHONE

6 MONTHS



Questionnaire via PHONE

12 MONTHS



Questionnaire via PHONE

Main outcome measures 3, 6 and 12 months (phone interview)

- Frequency of binge drinking in past 30 days

**Excessive use defined as
≥ 1 episode of binge drinking**

- Frequency of cannabis use in past 30 days

**Excessive use defined as
cannabis use ≥ 1X/week**



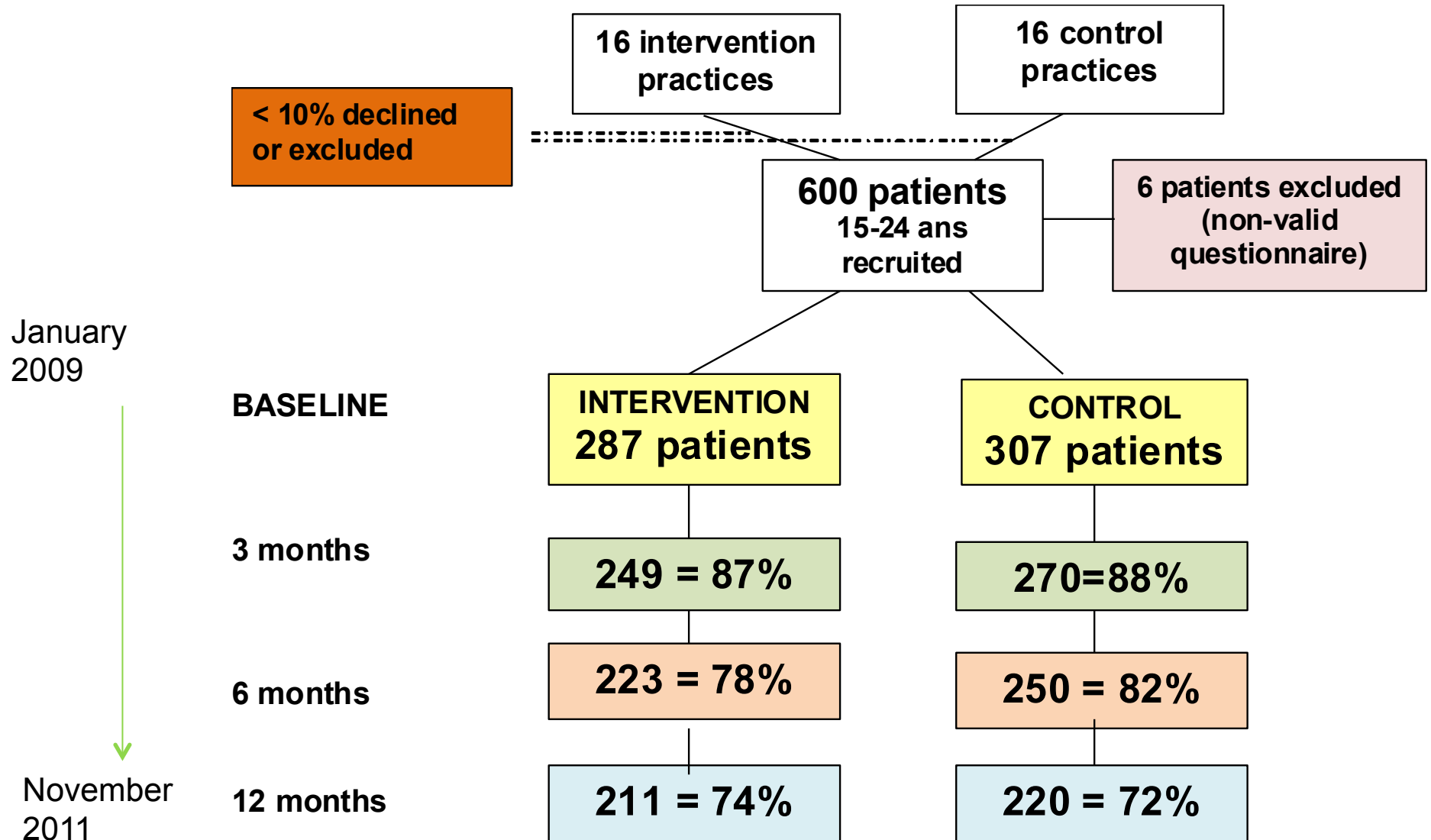
Analysis

- Separately for those who were excessive users at baseline and those who were not
- Logistic regression comparing alcohol and cannabis use at 3, 6 and 12 months in the intervention and the control arms.
- “marginal models using Generalised Estimating Equations (GEE) with robust estimates of standard errors to allow for clustering”

RESULTS



Recruitment & follow-up



Outcome at 3, 6 & 12 months amongst those who were excessive substance users at baseline (n=279)

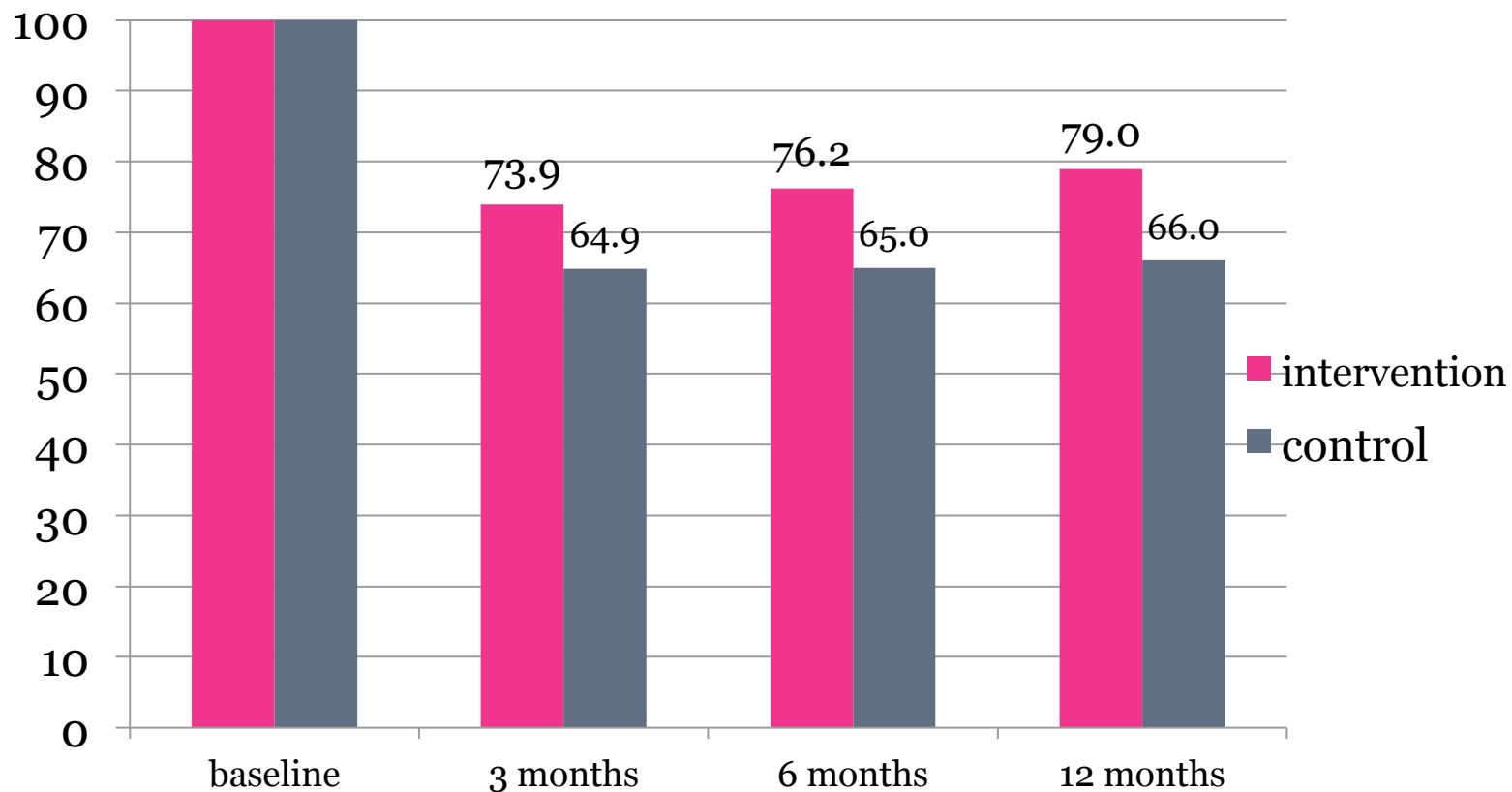


Table: Proportion with the outcome in those with excessive substance use at baseline (n=279) and odds ratios for this outcome in the intervention compared to the control arm

OUTCOME	Intervention Arm (n=130)	Control Arm (n=149)	Adjusted OR		p-value
EXCESSIVE ALCOHOL and / or CANNABIS USE	%	%	OR	(95% CI)	
- at 3 months	73.9	64.9	1.2	(0.7- 2.1)	0.50
- at 6 months	76.2	65.0	1.4	(0.8- 2.7)	0.25
- at 12 months	79.0	66.0	1.6	(0.8- 3.3)	0.21



➤ Although brief interventions are effective in other contexts and other age-group, no evidence that training family doctors to provide brief intervention for substance use to adolescents and young adults is effective.

Hypotheses to explain these results?

1. Family doctors interested in the theme, in young people-> little additional effect through training
2. Consultation = main intervention
3. Completing baseline questionnaire = intervention
4. Little emphasis on effective screening-> brief intervention may have only been proposed to a minority of young people who could have benefitted.
5. ...





Other useful data from a health services research perspective

- Proportion of young people reporting excessive substance use at baseline
- Reasons for encounter (as expressed by patients)
- Trends in substance use in those who were excessive users and non-excessive users at baseline.

Proportion of excessive substance use among young people consulting family doctors in PRISM-Ado, at baseline

Excessive substance use in past 30 days	594 young people consulting 32 practices	
	% (95%CI)	
• Alcohol (≥ 1 binge drinking)	44.9	(40.8-49.0)
• Cannabis ($\geq 1x$ /week)	11.1	(8.5-13.6)
• Alcohol &/or cannabis	48.9	(44.7-53.0)

Broers B, Meynard A, Narring F, Haller DM
(manuscript in preparation)

ICPC-2 coded reasons for encounter as reported by young people before the consultation

ICPC-2 main chapters	Proportion in %	
	Males N=259	Females N=308
General / health check	43.2	41.9
Respiratory	17.6	13.8
Skin	8.1	6.8
Digestive	2.7	4.9
Psychological	4.2	8.8
Musculo-skeletal	14.3	10.1
Substance use	1.2	0.6
Sexual and reproductive health	-	0.3

DATA

- High prevalence of excessive substance use
- High rate of consultations for periodic health checks
- Reason for encounter rarely substance use

IMPLICATIONS

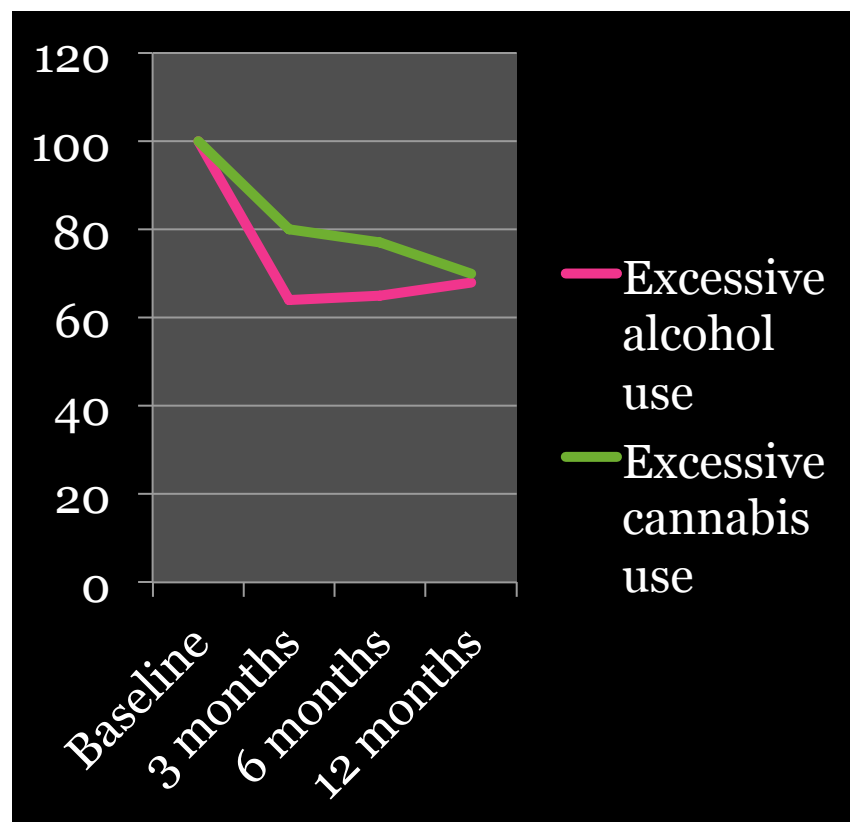
- Opportunities for **prevention**
- Health **service planning** / adequate response to young people's needs
- Inform **training** of junior doctors and other health professionals



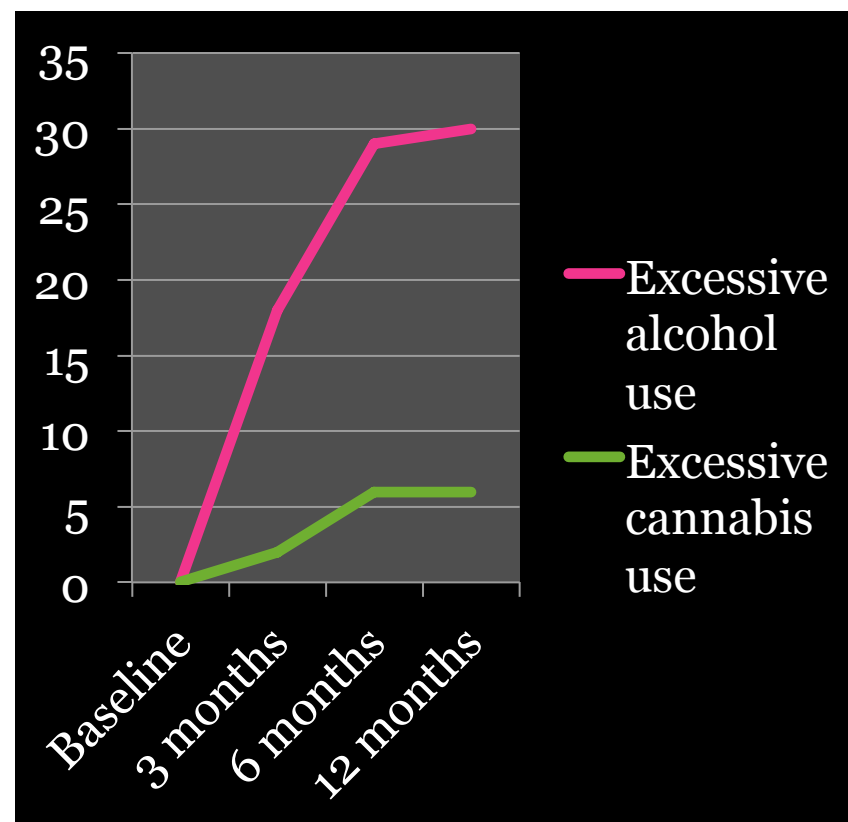
Trends in substance use

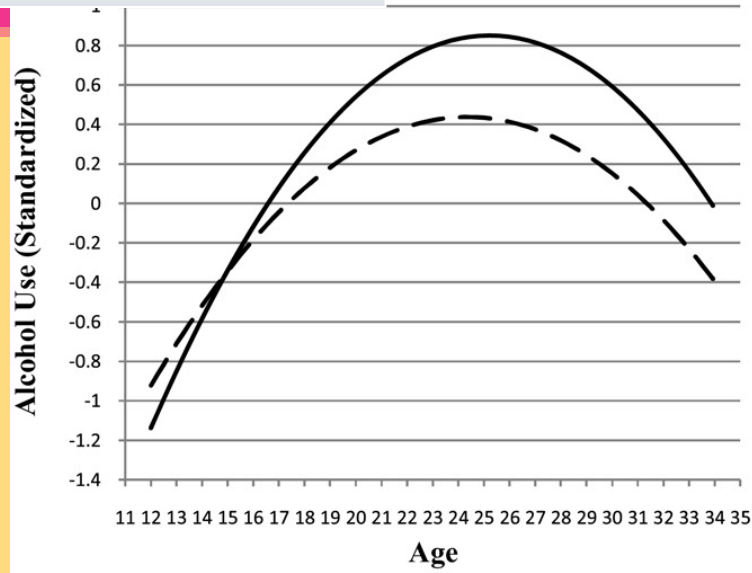
Trends in substance use

**In those with excessive use at baseline
(OH: n=247; THC: n=62)**

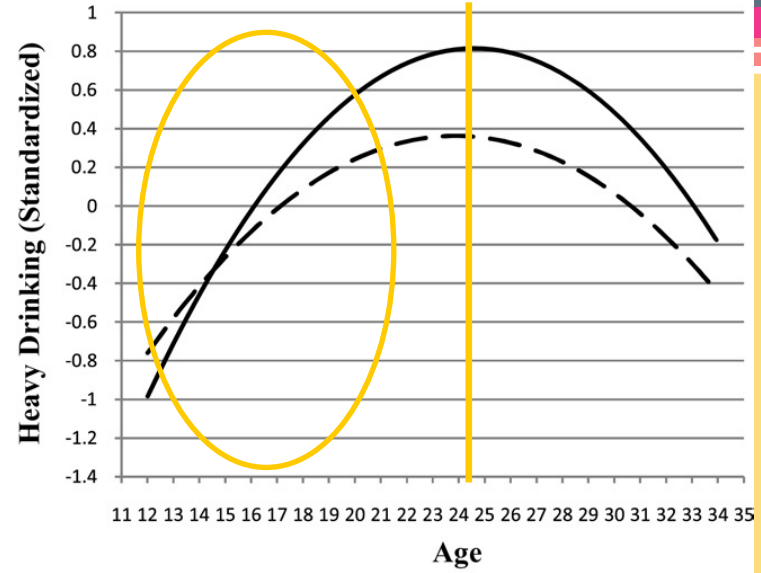


**In those without excessive use at baseline
(OH: n=303; THC: n= 502)**

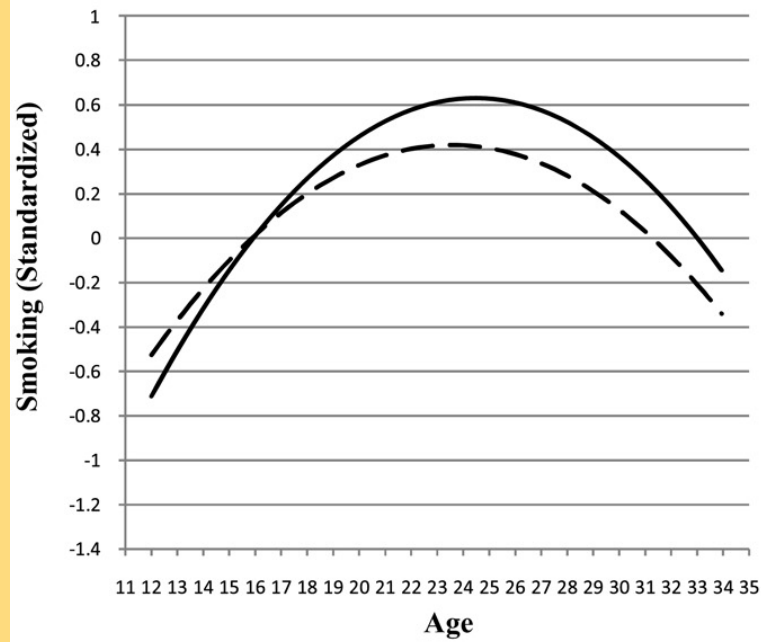




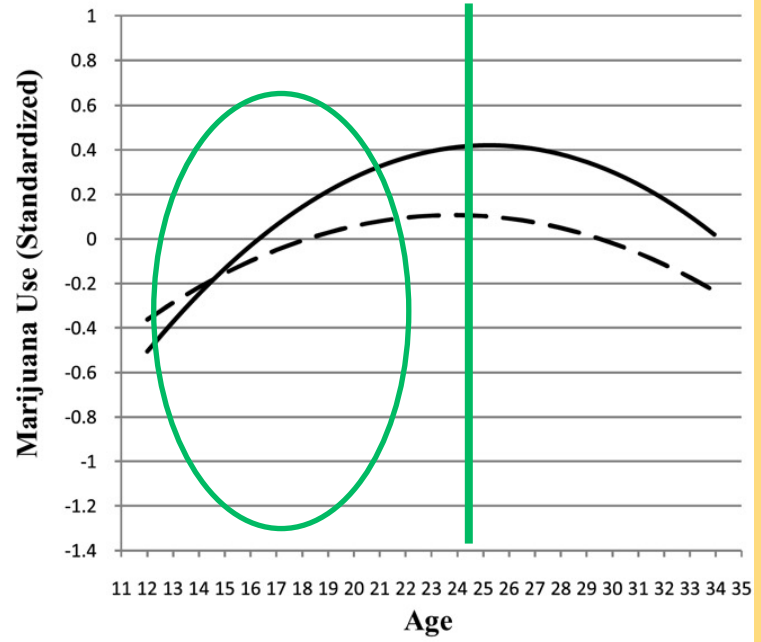
A. Alcohol Use



B. Heavy Drinking



C. Smoking



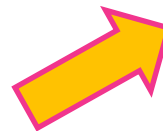
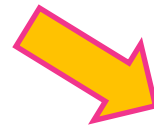
— Males - - - Females
D. Marijuana Use

DATA

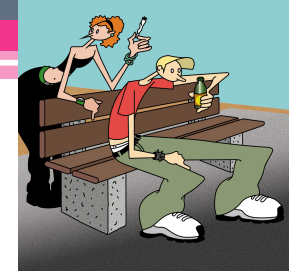
- Decrease in excessive substance use in excessive users
- « Natural » (age-related?) increase in excessive use in non-excessive users

IMPLICATIONS

- Potential role of family doctors in modifying substance use trajectories
- Lack of anticipatory guidance?



PRISM-Ado : Conclusions



- Excessive substance = frequent, but young people do not seek help for this
- Despite recommendations, still no evidence that training family doctors to deliver BI is effective!
- BUT: study suggests a role for primary care in modifying young people's substance use trajectories.
- Longitudinal studies could help specify this role in the future.

PRISM-Ado team & funders



- ▶ **Dr Anne Meynard**
- ▶ **Dr Françoise Narring**
- ▶ **Dr Barbara Broers**
- ▶ **Dr Danièle Lefebvre**
- ▶ **Dr Obioha Ukoumunne**

- ▶ **Mme Gwendolyn Thys Dentand**
- ▶ **M. Gaëtan Conti**

- ▶ **Mmes Laure Vieux, Claudine Calvet, Clothilde Hamion, Stéphanie d'Incau, Coralie Salomon**
- ▶ **M. Jean-Marc Schwob, Lucien Widmer, Damien Fayolle**

PILOT TEAM

- **Dr Delphine Mottu**
- **Dr France Le Broccard**
- **Dr Risako Suzuki**
- **Dr Alain Michaud**
- **Dr François George**
- **Dr Florence Maggi**
- **Dr Liliane Regard**
- **Dr Daphné du Pasquier**
- **Dr Yves Beyeler**
- **Dr Arabelle Rieder**

Study funded by: Safra Foundation & Geneva University Hospitals, Switzerland, the Käthe-Zingg-Schwichtenberg Fund (Swiss Academy for Medical Sciences) and the Swiss Federal Office of Public Health

Thank you to family doctors involved in the study
(paediatricians and general internists)
their staff and their patients!

- Dr S. Antonini Revaz
- Dr F. Balavoine
- Dr T. Battisti
- Dr P. Berchtold
- Dr M. Birchmeier
- Dr F. Bovet Boone
- Dr M. Bungener
- Dr M. Chalier
- Dr R. Chevalley
- Dr C. Cuendet
- Dr M. Dafflon
- Dr P. Dussoix
- Dr C. Extermann
- Dr I. Favre
- Dr C. Feroiu
- Dr A. Golcea-Chittaro

- ▶ Dr P. Guilbert
- ▶ Dr Y. Heller
- ▶ Dr L. Herzig
- ▶ Dr C. Jacquier
- ▶ Dr S. Jotterand
- ▶ Dr V. Kirchner
- ▶ Dr P. Klauser
- ▶ Dr. J. Meizoz
- ▶ Dr P. Membrez
- ▶ Dr V. Paris
- ▶ Dr M. Perin-Minisini
- ▶ Dr F. Quinodoz
- ▶ Dr A. Rieder-Zanone
- ▶ Dr L. Terraz
- ▶ Dr R. Vasquez
- ▶ Dr A. Vilaseca

Thank you for your attention!







A l'inclusion: consommation excessive



Consommations excessive (30 derniers jours)	Groupe Contrôle (N=307)	Groupe Intervention (N=287)
• Alcool (≥1 binge)	48.6 %	41.0 %
Garçons	60.8 %	57.1 %
Filles	38.9 %	28.7 %
• Cannabis (≥1x/semaine)	9.6 %	12.6 %
Garçons	16.4 %	18.1 %
Filles	4.2 %	7.5 %
• Alcool et/ou cannabis	50.8 %	46.8 %
Garçons	64.1 %	61.5 %
Filles	40.1 %	32.9 %

A l'inclusion: consommation TRES excessive



Consommations excessive (30 derniers jours)	Groupe Contrôle (N=307)	Groupe Intervention (N=287)
• Consommation très excessive d'alcool (≥2 binge/mois)	31.3 %	27.1 %
Garçons	46.1 %	38.1 %
Filles	19.2 %	16.8 %

Intervention

- Informations fournies par médecins groupe intervention (5% données manquantes)
- 32% exposés seulement à la première étape (“Ask”) des 5A.
- Intervention complète 5As proposée seulement à 7% des patients
- Durée: < 5minutes dans 57% des cas
< 10 minutes dans 34% des cas
10-15 minutes dans 6% des cas
>15 minutes dans 3% des cas