



EURECA-PRO Conference on Responsible Consumption and Production 2023



Veggie Challenge: A 30-day app-based individual versus teams randomized controlled trial to reduce animal product consumption



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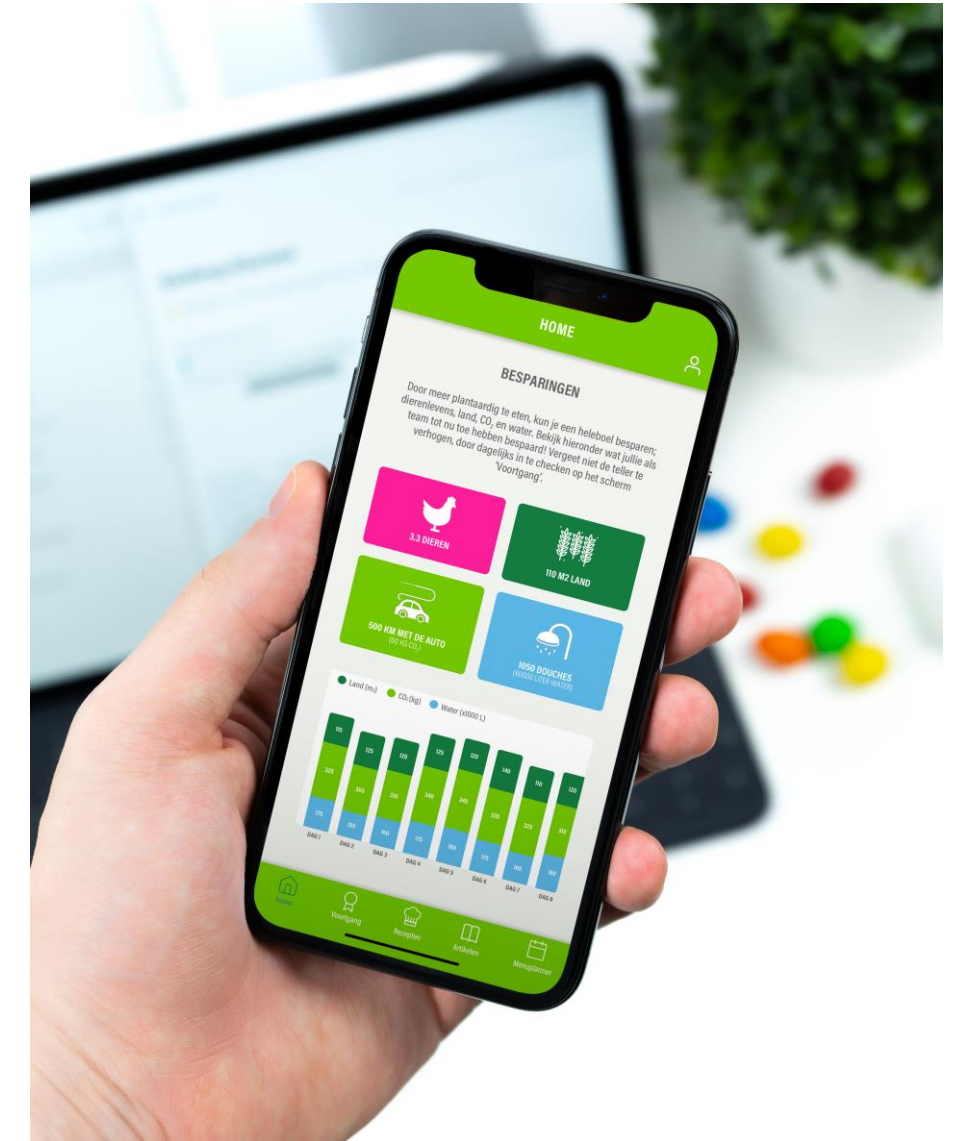
Context

- Animal product consumption (APC) consequences
 - GHG emissions
 - Land use
 - Water use
 - Health
 - Animal welfare
- Behavior change = one of the crucial measures
- Consumer-side interventions to reduce APC
 - Short-term decisions and willingness
 - Focus on informational interventions
 - No real-life campaigns (e.g., animal product-free challenge)
 - Lack of mobile applications and social interventions



Research aim

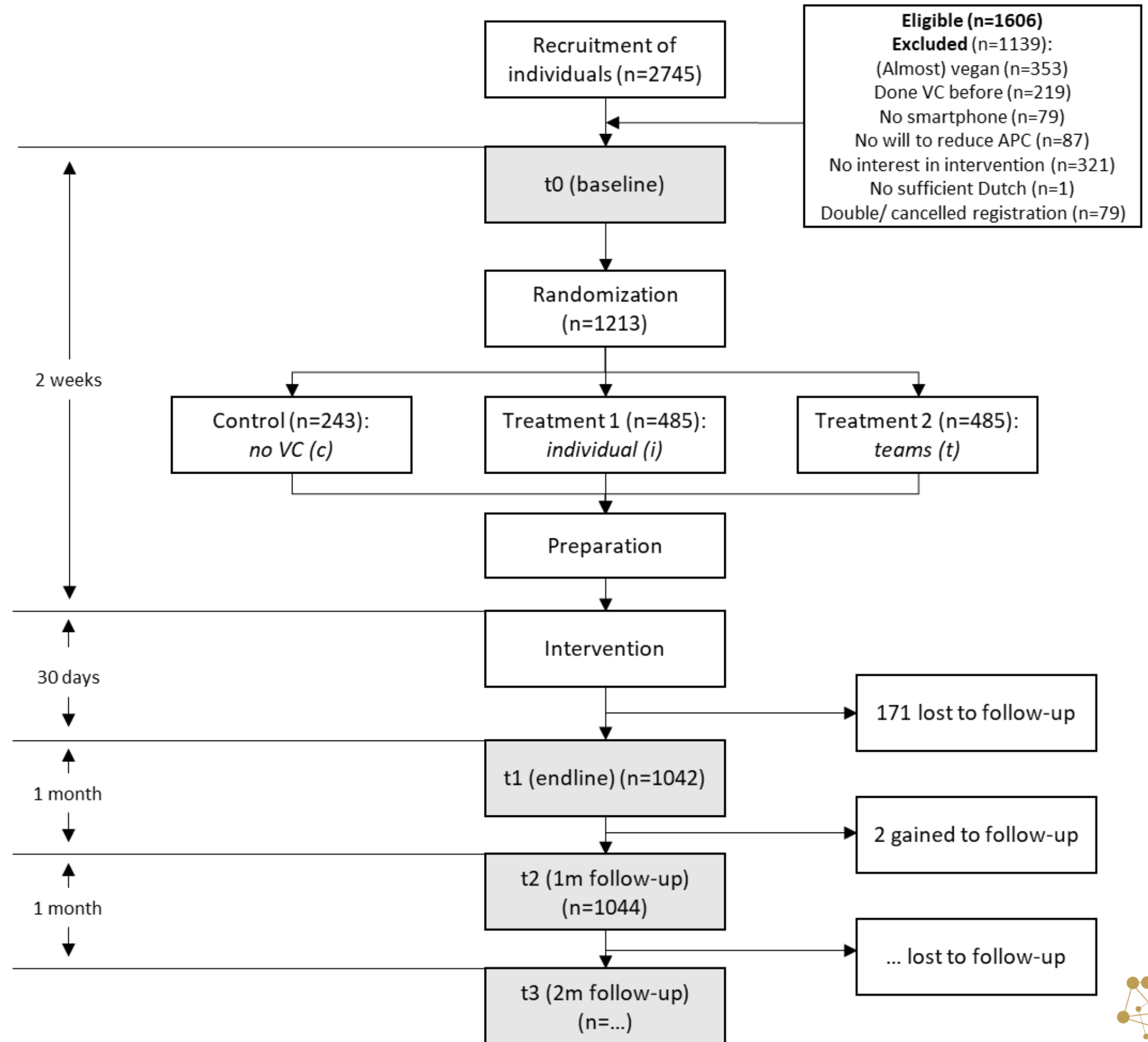
- Study the effectiveness of an *animal product-free challenge*
- Veggie Challenge
 - 30 days reducing APC according to set goal
 - App: Feedback, information, habit tracking, rewards
- Veggie Challenge Teams
 - Social component = participate in team
 - Chat, group-level feedback, social support
- Primary and secondary hypotheses
 - VC will reduce APC (vs control group)
 - VC Teams will reduce APC more than VC
 - Secondary: same hypotheses 1 and 2 months after intervention



Study design

- RCT with 3 arms:
Control – VC – VC Teams
- VC Teams = encouragement to invite friends/family to the team
- April 2023 – October 2023
- Pre-registration:

<https://osf.io/82ekc>



Preliminary results

- Main effect = ANCOVA comparing the means at T1

Main effect analysis

Table

Mean APC at endline (T1) per experimental arm (n = 1042)

Experimental Arm	N	Mean APC	SD	Adjusted mean APC ^a	SD _{adj}	Effect size Cohen's d ^b
Control	224	7.79	4.25	7.57	3.77	
VC	410	6.45	4.20	6.26	3.91	0.34 (vs. Control)
VC Teams	409	6.22	4.62	6.40	3.90	0.31 (vs. Control)

Note. ^a Adjusted mean after controlling for baseline APC, intention, goal and diet in ANCOVA. ^b Based on the adjusted means.

Table

ANCOVA of APC at endline, reweighed for non-responder sample (n = 1043)

Effect	Coefficient	SE	t-value	p-value ^b
Intercept	7.422*	0.727	10.204	0.000
Arm^a (ref: Control)				
VC	-1.376*	0.302	-4.552	0.000
VC Teams	-1.201*	0.301	-3.984	0.000

Note. Controlled for APC baseline, Intention baseline, Goal and Dietary label * significant at 0.05-level. ^a Pairwise comparison of means VC = VC Teams: diff = -0.175; p = 0.484. ^b p-values are Holm-Bonferroni corrected for multiple comparisons.



Conclusion & next steps

- Veggie Challenge = effective, at least shortly after intervention
- Could not show the effectiveness of Teams
 - Not many participants actually made a team
 - Better for voluntary participation (problem of selection in the study)
- Analysis of follow-ups
- Exploratory/additional analyses:
 - Subgroups of baseline diets
 - Alternative outcomes: food types, intention, GHG emissions associated with diets
 - Explanations of the effect (psychological constructs)
- Could lead to more support for animal product-free challenges by governments/ companies



Thank you for your attention

Questions?

Pre-registration:



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