DietWise

SYSTEMIC CHANGES | EMPOWERED CITIZENS

Deliverable D5.1

The overall methodology of pilot implementation

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Abbreviations

Abbreviation	Full Form
AI	Artificial Intelligence
BE	Belgian pilot team
GDPR	General Data Protection Regulation
GR	Greek pilot team
KPIs	Key Performance Indicators
LT	Lithuanian pilot team
RCA	Responsible Cooking Alliance
WP	Work Package

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1. Introduction

The DietWise project aims to create innovative solutions to promote healthy and sustainable eating and cooking practices. Some of the key objectives of the project are to develop novel behavioral interventions, create AI-based apps to empower citizens, and empowering vulnerable people. Another, crucial objective is testing the effectiveness of these behavioral interventions and AI-based apps in the field, with specific attention to vulnerable populations. Therefore, this report provides an overall methodology for these field experiments ('pilots') at the different project sites ('pilot countries': Belgium, Greece and Lithuania).

The pilots revolve around two types of solutions: AI-based apps and behavioral interventions. Two AI-based apps are being developed in DietWise. MyRecipeWatch is a mobile app that helps users make healthier and more sustainable food choices by analysing online recipes provided by the user, suggesting evidence-based ingredient substitutions, and offering personalized guidance grounded in demographic data and the Global Burden of Disease framework (Afshin et al., 2019). It provides transparent, user-driven interactions, including acceptance statistics for substitutions and a score system that highlights the improvement potential of proposed changes. Responsible Cooking Alliance (RCA) is a browser add-on designed for food influencers, offering supportive, non-punitive feedback on the nutritional and sustainability aspects of their online recipes without assigning scores or altering content. RCA emphasizes accessibility, editorial autonomy, and flexible participation levels, enabling influencers to progressively engage in responsible recipe development while maintaining their creative freedom.

In terms of behavioral interventions, DietWise partners developed and tested messages to encourage acceptance of recipe improvement recommendations. This was done through a systematic process of selecting messages from literature and through expert screening, as well as three optimization pilot studies and a large-scale megastudy. The pilots helped refine recipes, messaging, and study design while revealing that intervention effects depend heavily on context, baseline acceptance, and alignment with users' values. The megastudy then compared 20 interventions simultaneously, showing that overall acceptance was already high but that certain messages, especially gentle omega framings (i.e. framings that stress personal benefits), social norm, and identity-affirming cues, were effective for specific subgroups such as men and value-driven consumers.

To validate the tools and interventions in real-life settings, the pilot countries will disseminate and evaluate their effectiveness in the field. This also provides the opportunity to improve the tools and interventions after feedback, increasing their practical relevance and appropriateness. In Belgium, the partners KUL, VIGL and FOOD will conduct two studies. One study will test whether MyRecipeWatch improves citizens' food literacy, and healthy eating behavior, also involving vulnerable citizens. The second study will test whether ingredient swap suggestions in Foodbag's mealkit ordering system increase healthy food choices. In Greece, IHU will pilot the Responsible Cooking Alliance web-extension among influencers, including capacity building and onboarding training. Additionally, PROL will conduct nutrition classes and webinars in a pilot in schools situated in low-SES neighborhoods, targeting children and their parents. In this context, MyRecipeWatch will be disseminated and tested by students' parents. Finally, in Lithuania, PHB and AdC will focus on adolescents and elderly to provide cooking classes and pilot MyRecipeWatch and pilot the RCA in combination with the same capacity building and onboarding training as in Greece. An overview of all studies is provided in Table 1.

Because two of DietWise's focal points are to empower vulnerable citizens and to engage other stakeholders, the pilots put strong emphasis on involving groups at risk of vulnerability (e.g., adolescents in Lithuania, school communities in areas of low SES in Greece). Moreover, all pilots involve stakeholders for real-world validation and expert advice regarding the tools and interventions (Section 6). For instance, Belgium will involve dietitians in testing the MyRecipeWatch app before implementing a larger field experiment.

To streamline the pilot countries' efforts and ensure comparability of results, this deliverable outlines a common methodology.

Table 1: Overview of DietWise pilot studies

Study number and name	Intervention	Target group	Design	Key outcomes	Stakeholders
Belgium					
Study 1a - MyRecipeWatch	MyRecipeWatch	General population (~800)	RCT and pre-experimental	Food literacy, healthy eating behavior	Dietitians, citizens
Study 1b – MyRecipeWatch onboarding	MyRecipeWatch and onboarding session	Vulnerable populations (~100)	Quasi-experimental and/or pre-experimental	Food literacy, healthy eating behavior	Dietitians and community organizations, vulnerable citizens
Study 2 - Foodbag	Foodbag ordering system with ingredient swap suggestions	Foodbag customers (~700)	RCT	Healthy and meatless meal choices, food literacy, healthy eating behavior	Dietitians, citizens
Greece					
Study 3 - RCA	RCA and capacity building/ onboarding training	15-20 influencers	Pre-experimental	Food literacy (nutritional knowledge of influencers)	Nutrition & Dietetics University Students, Dietitians active on social media, food bloggers
Study 4 – MyRecipeWatch in low-SES schools	MyRecipeWatch and nutrition classes	500 school children and parents of low-SES primary schools	Pre-experimental	Food literacy	School communities; principals; parents associations; municipalities
Lithuania					
Study 5 - RCA	RCA and capacity building/ onboarding training	15-20 influencers	Pre-experimental	Food literacy (nutritional knowledge of influencers)	Influencers
Study 6 – MyRecipeWatch with adolescents and elderly	MyRecipeWatch and cooking classes	50 elderly, 50 university students	Pre-experimental	Food literacy	Vulnerable citizens including older adults and adolescents, the general public

2. Research questions and hypotheses

There are six research questions that should be answered across the pilot studies:

1. Does MyRecipeWatch **effectively** improve food literacy (i.e., knowledge) and healthy eating behavior?
2. Does the Responsible Cooking Alliance **effectively** improve the food literacy (i.e., knowledge) of influencers?
3. Which behavioral messages/interventions are most **effective** at increasing acceptance of recipe recommendations?
4. Do the tools and interventions lead to varying effects for groups with different socio-demographic characteristics, levels of motivation, and vulnerability dimensions (**heterogeneity**)?

5. Do citizens keep using MyRecipeWatch and influencers the RCA and which characteristics drive maintained engagement (**retention**)?
6. What makes the tools useful and engaging for **vulnerable populations**?

Question 1 to 3 are about the **effectiveness** of DietWise's social and digital innovations; do the AI tools and behavioral interventions lead to improved food literacy (and in the Belgian pilot also eating practices) that are more in line with nutritional guidelines? On top of these questions, all study sites will assess **heterogeneity** in the effectiveness of the tools and interventions, in terms of socio-demographic characteristics, psychological perceptions/beliefs (e.g., motivation for healthy and sustainable eating), and vulnerability dimensions. Including and empowering **vulnerable populations** is also one of the key goals. All pilots involve vulnerable groups in different ways and assess how these groups can be engaged and become interested in the tools, and whether the interventions work differently for them. Finally, all pilots analyze to some extent whether people keep using the AI tools (**retention**) and which characteristics drive this engagement.

Table 2 sums up the research questions, hypotheses that belong to those research questions, and at which pilot sites these will be tested. The methodology allows for deviations of these questions and hypotheses, depending on the feasible study designs and target groups of the pilots.

Table 2: Overarching research questions and hypotheses

Research question	Hypotheses	BE	GR	LT
1. Does MyRecipeWatch effectively improve food literacy and healthy eating behavior?	H1a: MyRecipeWatch positively influences food literacy.	X	X	X
	H1b: MyRecipeWatch positively influences healthy eating behavior.	X		
2. Does the Responsible Cooking Alliance effectively improve the healthiness (i.e., alignment with nutritional guidelines) of influencers' recipes?	H2: The Responsible Cooking Alliance positively impacts influencers' knowledge of nutritional guidelines.		X	X
3. Which behavioral messages/interventions are most effective at increasing acceptance of recipe recommendations?	H3a: Behavioral messages increase recommendation acceptance compared to seeing no message.	X	X	X
	H3b: The behavioral messages differ in terms of effectiveness.	X	X	X
4. Do the tools and interventions lead to varying effects for groups with different socio-demographic characteristics, levels of motivation, and vulnerability dimensions (heterogeneity)?	H4a: MyRecipeWatch has different effects on food literacy and healthy eating behavior, based on participants' socio-demographic characteristics, healthy and sustainable cooking motivation and vulnerability dimensions.	X	X	X
	H4b: The RCA has different effects on influencers' recipe improvement, based on the influencers' socio-demographic characteristics and healthy and sustainability motivation.		X	X
	H4c: The behavioral interventions have different effects on recipe acceptance rates, depending on users' socio-demographic characteristics, psychological beliefs/values and vulnerability dimensions.	X	X	X

5. Do citizens keep using MyRecipeWatch and influencers the RCA and which characteristics drive maintained engagement (retention)?	H5a: Citizens' socio-demographic characteristics, levels of healthy and sustainable cooking motivation and vulnerability dimensions are associated with MyRecipeWatch retention.	X	X	X
	H5b: Influencers' socio-demographic characteristics and levels of healthy and sustainability motivations are associated with RCA retention.	X	X	X
	Evidence on H5a-H5b will be supplemented by descriptive data and qualitative feedback on retention, user experience and engagement methods (e.g., onboarding sessions, training)	X	X	X
6. What makes the tools useful and engaging for vulnerable populations?	H6: Citizen at risk of vulnerability rate MyRecipeWatch differently in terms of user experience than those not at risk.	X	X	X
	Evidence on H6 will be supplemented by descriptive data and qualitative feedback on retention, user experience and engagement methods (e.g., onboarding sessions, training)	X	X	X

Note. The general, non-directional hypotheses (e.g., H3b and H4a-c) will be further specified by the pilot country teams. H3b depends on the preparatory megastudy, which is still ongoing. This megastudy tests 20 messages in an online survey across the pilot countries; the specific hypotheses and selected messages in each country depend on the megastudy's results.

3. Pre-test and pre-pilot phase

As the pilot studies are based on newly developed digital tools and AI algorithms, the setup includes a pre-testing phase across all countries. This phase involves citizens and dietitians in testing and evaluating the tools and functionalities in terms of language, usability, appropriateness and accuracy through surveys and qualitative feedback. In addition, the questionnaire (see Section 5) will undergo testing. The pre-test phase of the digital tools and questionnaire takes place from approximately May to July 2026, allowing some room to integrate suggestions.

In addition, depending on the scale of the pilot study itself, it is recommended that countries conduct pre-pilot studies with few participants (e.g., 10-20) to finetune the questionnaire and research design between May and September 2026.

4. Pilot design

The general goal and reach of the pilots, and hence the design, varies across countries, depending on the research question, practical features, feasibility and target groups. Some plans involve randomized experimental designs to test effectiveness, while other pilot plans focus more on implementation and reaching specific populations, involving smaller groups of people to test the app in combination with capacity building and/or nutrition classes. The KPIs do not outline requirements on experimental design, but ideally, the field experiments test the relevant hypotheses as cleanly as possible, i.e., uncover a causal effect that minimizes confounding factors. Here we outline the gold standard experimental design, as well as other options. In addition, the design may include qualitative components to obtain more in-depth information from participants.

In terms of experimental design, there are three choice dimensions: the method of assignment, the counterfactual, and the design structure. **The method of assignment** refers to how participants are allocated to conditions; most importantly whether assignment is random (as in randomized controlled trials), quasi-random (not assigned randomly by the researchers but still depending on a random variable), or non-random, which directly influences internal validity by shaping how well the study balances confounders across groups. **The counterfactual** dimension concerns what serves as the comparison condition for the treatment: this may be a no-treatment control, an active comparison, or a pretreatment

baseline, and this choice determines the precise contrast being estimated. Finally, **the design structure** specifies analytical comparisons and number of measurements, typically as *between-subjects*, *within-subjects*, or *mixed*, which affects statistical power, and the kinds of inferences that are most appropriate.

If possible, we strive to conduct *randomized controlled trials* (RCTs) with a *mixed* design structure to test our hypotheses. In terms of assignment method and type of counterfactual, this means that the participants are randomly assigned into a control and treatment group. Several types of control groups are possible: an inactive control group, a waitlisted control group, or an active control group. This choice depends on feasibility, appropriateness, and the exact comparison the country teams want to make (e.g., comparing MyRecipeWatch to business as usual, or to an information-only treatment). Here, the primary contrast is *between subjects*, but because we aim for a *mixed* design with *within-subjects* pre- and post-measurements, we can also adjust for baseline values of the outcome variables and track individual trajectories across time. The countries will not differ on the design of testing the behavioral message interventions (RQ3), which is randomized within the MyRecipeWatch users by default. Every treatment participant will face different, randomly assigned messages, or no message (control), and the level of analysis ('subjects') is recommendation acceptance choice. RCTs are considered the gold standard because random assignment balances both known and unknown confounders across groups, enabling the most credible causal inference in a controlled comparison.

When random assignment is not feasible or appropriate, country teams may instead rely on *quasi-experimental designs*, which approximate experimental conditions but lack full control over the assignment mechanism. In these cases, participants may be assigned non-randomly or involve an external comparison group that can be matched to the treatment group. If this is the case, we use additional analytical strategies, such as controlling for baseline covariates, or using pre-post mixed structures (e.g., difference-in-differences). Although these designs can still produce credible evidence when carefully implemented, they provide weaker protection against unobserved confounding than true RCTs, and causal interpretations must therefore be more cautious.

If having a counterfactual is not possible or appropriate (e.g., when a partner prefers giving the treatment to everyone because of limited reach), only *within-subject comparisons* can be used, also called a pre-experimental design. In this case, every participant serves as their own control, and we analyze observed changes over time rather than comparisons between groups. However, without a counterfactual, they are especially vulnerable to alternative explanations such as regression to the mean, maturation, historical events, or general trends unrelated to the intervention. While repeated measures can still provide useful descriptive or suggestive evidence, particularly when strong, immediate, or theory-consistent changes are observed, they allow only limited conclusions about causality. As a result, findings from within-subject–only designs should be interpreted with caution and ideally supplemented with additional qualitative or contextual information.

It is assumed that the last option (within-subject comparisons over time) is possible in all pilots, due to a streamlined pre-post questionnaire approach; see Section 5. Table 3 displays the different designs.

Table 3: Pilot design options

Design name	Assignment	Counterfactual	Design structure
Randomized controlled trial (RCT)	Random	Comparing treatment to clean control group (active, inactive, waitlisted, …)	*Mixed*. Main comparison = *between-subjects*. More accuracy and power through *within-subject* controls/ analyses.
Quasi-experimental	Quasi- or non-random	Comparing treatment to non-random control group: e.g., self-selected, matched, assigned by external factors	*Mixed*
Pre-experimental	No assignment	Comparing post- to pre-intervention measurement	*Within-subjects*

These designs are used to test all research questions, but most cleanly do so for research questions 1 to 4. Question 5 (retention) will be descriptively evaluated by looking at app usage data and associations between participant

characteristics and retention. Depending on the pilot site, some methods of engagement may be tested. To increase feasibility, Question 6 about engaging vulnerable populations can be approached in a variety of ways, for example embedded in the pilot study or through qualitative methods. Each country team will however compare non-vulnerable to vulnerable groups in terms of app evaluation (H6).

Finally, depending on feasibility and other design choices, pilot teams may consider collecting qualitative evidence to gather deeper insights into user experiences, mechanisms behind intervention effects, and intervention acceptance and improvements. Considering DietWise's focus on vulnerable populations, such a qualitative approach may be particularly insightful among those groups to ensure they find the interventions practically relevant and usable. Examples of methods to gather qualitative evidence are interviews, focus groups or open-text survey questions.

5. Instruments

To streamline the approach, and compare findings across pilots, the pilot partners will minimally use a pre- and post-evaluation with a set of base questions. The overarching outcome variables of interest, are 'food literacy' (operationalized as nutritional knowledge) (all pilots), and 'healthy eating behavior' (only the Belgian pilot). Both are operationalized through survey questions.

As we mostly expect to improve nutritional knowledge through MyRecipeWatch and the RCA, it was decided to focus on the nutritional knowledge dimension of *food literacy*. The measure is a self-developed nutritional knowledge questionnaire, based on Section 1 of the General Nutrition Knowledge Questionnaire (Kliemann et al., 2016), and adapted to the Global Burden of Disease dietary risk factors (Afshin et al., 2019) and local nutritional guidelines. Participants will be asked whether nutritional guidelines recommend eating more, the same or less of certain food products, for example wholegrain products, vegetables, salt, legumes, and sugar-sweetened beverages.

The Belgian pilot will also test the effectiveness of MyRecipeWatch on general *healthy eating behavior*, which is measured through the Rapid Prime Diet Quality Score Screener (rPDQS), a validated 13-question food-frequency screener (Kronsteiner-Gicevic et al., 2023). The screener measures frequency of 13 consumed product types in the past month on a 5-point Likert scale: 'Less than once per week', 'Once per week', '2-4 times per week', 'Nearly daily or daily', and 'Twice per day or more'. Examples per product type are adapted to the local context, and the full-fat dairy category is replaced by milk products and reversed in terms of positivity based on the Global Burden of Disease risk factors (Afshin et al., 2019). A scientific synthesis of meta-analytic evidence on health effects of milk and dairy products also shows that overall effects are neutral or positive (Thorning et al., 2016).

Each pilot will also assess socio-demographic variables, such as age, gender, household composition, household income, food insecurity, educational level, occupational status, and migration or ethnic background. Some of these variables also serve as measures of vulnerability dimensions. In addition, common variables of interest across the pilots are motivation to cook healthily, motivation to cook sustainably, cooking-related ambivalence, intention to use ingredient suggestion tools, frequency of eating home-cooked meals and frequency of using recipes.

Finally, pilots will use streamlined evaluation questions for MyRecipeWatch and the Responsible Cooking Alliance, such as on the usability and appropriateness of suggestions.

For the full questionnaire, we refer to Appendix I. Following the pre-testing phase, the questionnaire may undergo minor amendments, in order to incorporate feedback and ensure clarity, relevance, and methodological robustness prior to its final implementation.

6. Stakeholder mapping and engagement

All pilot partners should include stakeholders to increase the practical relevance and feasibility of the research. Following the Implementation-STakeholder Engagement Model (I-STEM) by Potthoff et al. (2023), pilot partners are advised to follow these steps:

1. **Choose engagement objectives.** This entails identifying the goals the teams plan to achieve by involving stakeholders, which may include 'inform', 'understand', 'verify', 'enroll', 'access', or 'do'. For instance, it may be relevant to involve stakeholders in 'verifying' the usability and credibility of the apps and underlying AI models

before they are disseminated to a wider public. In a broader sense, the target users can be involved by 'enrolling' them to test one of the apps. There can be multiple objectives per activity and they may overlap.

2. **Map stakeholders.** In this step, the pilot partners should identify which stakeholders to engage. Reasons to involve specific stakeholders are their degree of influence, their expertise, their orientation (favorable or resistant attitudes towards the innovation), the impact of the innovation on the stakeholder, their capacity (time and resources available for the stakeholder to participate) and trust in the stakeholder's engagement. For example, dietitians have the expertise needed to verify the quality and credibility of the AI models, while the end users (citizens and influencers) are most impacted by the apps. The specific list of stakeholders is linked to the objectives from step 1.
3. **Choose an engagement approach.** Here, we choose how to involve stakeholders. The four main ways or levels include disseminating, assessing, consulting and collaborating. Disseminating would involve giving out information, while assessing means gathering information from stakeholders. Consulting goes a step further by seeking advice or feedback. Finally, collaborating is a more intense involvement, working closely with stakeholder to reach a common goal. Our approaches will most likely entail assessing and consulting by getting feedback and evaluations from different stakeholders.
4. **Defining the qualities and logistics.** This step defines the implementation of stakeholder engagement. The work can vary based on preparedness (how much of the work is already done before engaging stakeholders), structure (a more structured or open approach), degree of activity (active involvement through co-creation sessions, or less active dissemination via media channels), regularity and accountability. For example, in the pre-testing phase of the apps we can ask people to test out the app once (high activity, low regularity, activity is prepared and structured).
5. **Consolidating engagement outcomes.** After or throughout the activities, the engagement activities will lead to specific outcomes which can be linked to the objectives established in step 1. For instance, involving dietitians will lead to the verification of the AI models and apps.

Table 4 summarizes the preliminary plans for stakeholder mapping and engagement by the different pilots.

Table 4: Preliminary stakeholder mapping and engagement plans

	Belgium	Greece	Lithuania
1 Engagement objectives	Informing, Verifying, Enrolling, Doing	Informing, Verifying, Enrolling, Doing	Informing, Verifying, Enrolling, Doing
2 Stakeholder mapping	Dietitians, citizens, vulnerability risk citizens, organizations supporting vulnerability risk citizens	• Influencers' Pilot: Nutrition & Dietetics University Students, dietitians active on social media, food bloggers. • School Pilot: Students and parents from primary schools from low-SES neighborhoods, teachers and principals, municipalities.	Vulnerable citizens including older adults and adolescents, and the general public; university and NGOs; influencers.
3 Engagement approach	• Dietitians will be consulted to verify the content and usability of the MyRecipeWatch app and AI model. • Citizens will be consulted to pre-test MyRecipeWatch for usability and appropriateness and will be enrolled and ask to	• Influencers will be enrolled in awareness and technical training on dietary guidelines and sustainability and consulted for evaluation • Students and parents will be consulted about the	• Vulnerable citizens will be engaged via culinary training sessions focused on preparing healthy and affordable meals using MyRecipeWatch app, and consulted using the surveys. • Influencers will be enrolled in awareness

	'do' during a field experiment. • Vulnerable citizens will be informed more thoroughly through onboarding sessions (dissemination). • Organizations and other intermediaries that have access to vulnerable groups will be asked to collaborate on finding participants and organizing onboarding session.	MyRecipeWatch app and enrolled in webinars/ classes. • The team will collaborate with schools and municipalities to gather participants	and technical training on dietary guidelines and sustainability and consulted for evaluation • Participants are collected through an NGO and university.
4 Qualities and logistics	During the pre-test, a couple of dietitians and citizens test the app in their own time during a week, followed by a written form and an online meeting to give feedback and recommendations for improvement. Onboarding sessions will be organized through several meetings with organizations, finalized by the in-person onboarding session. (Vulnerable) citizens take part in the pilot itself.	Influencers follow awareness training and technical onboarding (RCA) to prepare for self-assessing their Social Media recipe-related content, using pre- and post-intervention data to evaluate changes in knowledge, and longer-term usage. Low-SES schools are involved through classes and webinars.	Vulnerable citizens are involved through a cooking workshop and introduction to MyRecipeWatch. Influencers follow awareness training and technical onboarding (RCA) to prepare for self-assessing their Social Media recipe-related content, using pre- and post-intervention data to evaluate changes in knowledge, and longer-term usage.
5 Expected outcomes	Verifying and improving MyRecipeWatch, increased engagement among vulnerable groups. Increased food literacy and healthy eating behavior among citizens. Testing the effectiveness and feasibility of FOOD's swap implementation.	Verifying and improving MyRecipeWatch and the RCA, increased engagement among vulnerable groups. Improve knowledge in nutrition and sustainability literacy among influencers, students and parents.	Verifying and improving MyRecipeWatch and the RCA, increased engagement among vulnerable groups. Improve knowledge in nutrition and sustainability literacy among influencers, students and parents.

7. Impact measurement and analysis

Impact measurement and evaluation of the pilots consist of three components:

1. Evaluating the KPIs;
2. Analyzing the effectiveness (testing the hypotheses) of the intervention compared to the control group and/or over time;
3. Evaluating the implementation and app content.

First, a number of DietWise's KPIs are relevant to the pilot studies, to be evaluated after the pilots took place, as summarized in Table 5. The KPIs are measured using descriptive count, proportion or change data.

Table 5: DietWise KPIs relevant to pilot studies

# KPI	KPI Description	Evaluation Measure	Data source	Relevant pilots
20	Up to 12 influencers joining RCA	# of influencers signed up	RCA sign-up data	GR, LT
21	≥ 5000 users testing MyRecipeWatch	# users uploading at least 1 recipe	MyRecipeWatch app usage data	All
22	15-30% of users comply with the suggested MyRecipeWatch-corrections	% accepted suggestions	MyRecipeWatch app usage data	All
23	≥45 corrected typical recipes by citizens	# entered recipes	MyRecipeWatch app usage data	All
24	20-50% of people downloading the app who will start using tools and apps	% active users after sign-up	MyRecipeWatch and RCA usage data	All
25	5% increased purchases of healthy and sustainable meal kits	% change in healthiness of selected meals	Foodbag purchasing data	BE
32	≥ 15% improvement in food/cooking literacy score of vulnerable people	% change in food literacy score	Survey data	All
33	Belgium: Reach at least 100 vulnerable users	# participants with a vulnerable background in the onboarding sessions	Survey data	BE
34	Greece: >500 students and families reached to test intervention in low SES neighborhood schools	# pilot participants from low-SES schools	Study registration and survey data	GR
35	Lithuania: >100 adolescents and elderly reached to test interventions	# adolescent and elderly participants	Study registration and survey data	LT

Second, a crucial part of evaluating the tools' impact will be analyzing the key outcome variables (food literacy and healthy eating behavior). How effects on these outcomes are analyzed depends on the experimental design (see Section 4). If a randomized design with clean control group is followed (RCT), it suffices to regress the outcome variables on the experimental group (treatment and control as categories) at post-measurement(s). Controlling baseline values and covariates like gender and age will increase power. A significant difference at the 5-percent level in the positive direction for the treatment group means that the intervention had an effect. Means adjusted for the baseline values and covariates can be calculated and compared post-regression. As the behavioral message interventions will also be randomized, differences between them can be analyzed in a similar fashion, while controlling for within-person dependencies (the same individuals make multiple choices) through including personal-level fixed effects. It is also recommended to calculate standardized effect size (Cohen's d) to gauge effect size. In the field of behavioral science and food perceptions and behaviors specifically an effect of Cohen's d 0.20-0.30 is common and considered substantial (Broers et al., 2017; Lohmann et al., 2026), and for the uncontrolled setting of field experiments or comparing two active interventions (e.g., adding a behavioral message to another intervention) even effect sizes of 0.10-0.15 can be considered meaningful (Kraft, 2020).

Experimental designs with a non-random control (quasi-experimental) should evaluate effects using a difference-in-differences (DiD) approach, regressing the difference between pre- and post-values on experimental group, while

controlling for other relevant covariates. Here, a standardized effect size can be calculated by dividing the covariate-adjusted DiD coefficient (the adjusted difference between the two groups in change) between the control and treatment group by the pooled standard deviation of the two groups. The effect size should be interpreted with caution as we cannot conclude that it is a fully causal relationship due to the quasi-experimental design.

Pre-experimental designs that include only one group with a pre- and post-measurement should be analyzed by regression the outcome variable on a time variable (pre-post) to see whether post values are significantly different from pre values. One should control for potential confounders if possible. Personal-level fixed effects should be included to control for the within-person dependence between the two timepoints. A standardized effect size can still be calculated but should be interpreted with caution as it does not represent a causal effect in this case.

Finally, where applicable, pilot partners will evaluate the implementation and app itself through descriptive measures and qualitative feedback through the following metrics, which partially overlap with the KPIs.

- Reach: # downloads, registrations, demographic representativeness.
- Adoption: % users started using the app in the week after registration.
- Retention: % users still active after a specified period.
- Acceptability: user satisfaction, qualitative feedback.
- Reach and experience of vulnerable groups: # individuals with risk of vulnerability reached, and qualitative feedback.

8. Risks and mitigation strategies

Table 6 presents the cross-pilot risks and mitigation strategies, as well as how the risk can impact the pilots.

Table 6: Risks and mitigation strategies

#	Category	Detailed risk	Pilot Impact	Mitigation Measure	Probability
1	**Technical**	App functionality and readiness	Delay of studies; usability	Early planning and a long period for pilot implementation (May ’26 – August ’27) which allows for some delays. Pilots should have back-up plans that focus on usability or hypothetical studies rather than field study effectiveness.	medium
2	**Tool recruitment**	Insufficient reach/downloads/ engagement from citizens and influencers	Underpowered pilot results; irrelevance of tool; KPI#20 or KPI#21 not met.	Broad multi-channel dissemination; partnerships; (paid) promotion; pre-testing or evaluating relevance.	medium
3	**Study recruitment and attrition**	Low participation and retention in research	Limited pre-post data, underpowered for statistical conclusions	Broad dissemination, incentivize survey completion, minimize survey burden, send reminders.	high

4	**Retention/ engagement**	High app dropout	Insufficient usage data; limited behavior change; KPI#22 and #23 not met.	Use reminders/ prompts, test effective nudges; optimize onboarding; user support; qualitative feedback for improvements	high
5	**Vulnerable groups**	Vulnerable groups underrepresented or face barriers (language, access, digital)	Limited equity impact; findings not generalizable to vulnerable populations	Targeted recruitment via intermediaries; assisted onboarding; simplified instructions	medium
6	**Timeline**	Pilots not finalized in time	Not reaching deliverable deadlines	Long period/ buffer time to implement pilots. Early start by defining protocol plans.	low
7	**Data sharing & GDPR**	GDPR-compliance	Breach of privacy	Following the data management plan; making data sharing agreements between partners	low
8	**External factors**	Seasonal effects, competing campaigns, economic factors	confounding	Randomize participants and have a control group where possible to minimize risk. Measure & adjust for known confounders; qualitative data to contextualize findings.	medium
9	**Algorithm bias**	The AI might suggest swaps that are culturally insensitive, not feasible or relevant for the recipe	Reduced trust and high dropout (among specific groups)	Controlled development with output based on an expert-curated dataset. Manual check of frequent AI-generated swaps before full rollout. Pre-testing and finetuning with dietitians and citizens.	medium
10	**Unintended consequences**	Overlooked harm to participants (e.g., recommending unhealthy ingredients)	Reduced trust and engagement, breaching ethical principles	Cautious and controlled development based on specific nutritional guidelines and strong AI principles (e.g., human autonomy); thorough pre-tests of the app with dietitians and citizens.	low

9. Ethics and data management

All pilot partners participating in this study will be required to adhere to a clear set of ethical standards governing the conduct of the pilot and the treatment of participants. Some key points are obtaining ethical approval, obtaining informed consent, proper data management, and respecting the participants' rights.

Prior to commencement, all partners must have obtained ethical approval from their Institutional Review Boards. Partners must ensure that all participants are properly informed about the purpose of the study and apps, what data will be collected, how that data will be used, and who will have access to it. Participation must be entirely voluntary, and participants must be given the opportunity to provide explicit written consent before engaging with the study or app.

Such consent for the research will be embedded in the online questionnaire, and for the app itself will be embedded in registration (i.e., making an account). The Greek pilot that focuses on children from low-SES primary schools will have to obtain parental consent from parents for their child to participate in the research.

The research includes vulnerable research participants, so paying close attention to ethical considerations is crucial. As the questionnaires may ask some sensitive questions about topics people may need help with (i.e., food insecurity), the questionnaire will include referral information to relevant local services and organizations. Moreover, participants have the option to answer sensitive questions with 'I'd rather not answer this question'.

Participants retain the right to withdraw from the pilot or app at any time and without consequence, and any data collected from them must be deleted upon request. All participant data must be stored securely, anonymized wherever possible, and used solely for the purpose of evaluating the pilot. Raw data must not be shared with third parties, unless it has a specific purpose and is agreed upon by the participant. For transparency and replicability, partners are encouraged to share pseudonymized data in repositories upon publication of results, and to ask participants permission to do so. Partners must have a clear process in place for participants to raise concerns or report negative experiences during the pilot. Partners should also ensure that their recruitment practices are fair and inclusive, avoiding pressure or inducements that could unduly influence a participant's decision to take part.

For a more thorough explanation of data management and sharing practices, we refer to DietWise's Data Management Plan. In addition to these standards, DietWise's coordination team is obtaining advise from an external ethical advisor, who will give specific ethics feedback to the pilot plans.

10. Timeline

Figure 1 displays the anticipated timeline for the pilot planning and implementation. The timeline is exemplary, meaning that country teams may deviate depending on their own circumstances. WP5, which involved delineating the plans and developing the tools ends in April 2026, after which the pre-testing phase commences. Ideally, pilot countries have time to conduct pre-pilots of the questionnaires and/or research designs until the end of September, after which the full-scale pilots are expected to start. Country partners are expected to obtain ethical consent from relevant committees throughout the pre-testing and pre-piloting phase. To ensure enough time for reporting, pilots ideally last until March 2027 the latest, but the reporting buffer from March to August 2027 allows for some delays.

Figure 1. Exemplary timeline of pilot planning and implementation.

11. Conclusion

This report outlined the plans for pilot studies across the three pilot countries of DietWise: Belgium, Greece and Lithuania. Each pilot team has their distinct network of connections and partnerships, target group, expertise and capacity, which is why the pilot studies vary in scale and goal. Nevertheless, all pilots have the goal of improving citizens' and/or influencers' nutritional knowledge and healthy eating behaviors.

In Belgium, the partners KUL, VIGL, and FOOD will conduct RCTs to evaluate whether MyRecipeWatch enhances people's knowledge about food, improves food literacy, and promotes healthier eating habits, with particular attention to vulnerable groups. They will also examine whether adding ingredient substitution suggestions to FOOD's meal kit app encourages healthier food choices. In Greece, IHU and PROL will pilot the Responsible Cooking Alliance web extension with influencers, including training and capacity-building activities. They will also test MyRecipeWatch and run nutrition classes in schools located in low socioeconomic areas, focusing on both children and their parents. In Lithuania, PHB and AdC will concentrate on adolescents and older adults, piloting MyRecipeWatch as well as the Responsible Cooking Alliance through training and onboarding activities. An overview was presented in Table 1.

This report also serves as a guideline for the pilot teams to adhere to certain standards in terms of stakeholder engagement, ethics and data management, risk mitigation, timing and key measurement instruments. For example, all pilots should be approved by a relevant institutional ethics committee and ask informed consent from participants. In addition, key variables should be measured pre and post pilot for comparability. Pilot studies should commence in a timely manner to allow a buffer time for reporting.

The plans outlined in this report will be implemented in the period from May 2026 to August 2027, hopefully guiding citizens and influencers towards healthier cooking habits.

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Appendix

Appendix I : Base questionnaire

Code	Target Group	Country
BE-V	Vulnerable	Belgium
BE-G	General population	Belgium
GR-V	Vulnerable	Greece
LT-V	Vulnerable	Lithuania
INF	Influencers	Greece/ Lithuania
UNI	Universal / Both target groups	All

[Introduction will be supplemented by completed information sheets and consent forms in final versions]

Dear respondent,

We invite you to participate in this survey. Our aim is to assess the effectiveness of MyRecipeWatch/Responsible Cooking Alliance (RCA) across diverse user groups participating in the interventions, with an emphasis on promoting sustainable cooking practices.

If you agree to participate in this survey, please answer the questions. This survey is anonymous. The survey results will be published in aggregated form, preventing any possibility of identifying the participants of this study.

Thank you for your time and contribution to this research.

Capture ID - Unique Identifier (email)

Sociodemographic characteristics - Collected once at start

1. **Date of completion:** [UNI]
DD/MM/YY

2. **Responder:** [GR-V]
- ☐ Student's father
- ☐ Student's mother
- ☐ Student's grandmother
- ☐ Student's grandfather
- ☐ Student's siblings (>18 years)
- ☐ Other

3. **Please indicate your biological sex** [UNI]
- ☐ Male
- ☐ Female
- ☐ Prefer not to say

4. **Please indicate your age** [UNI]

5. **What is your current living situation?** [BE-V, BE-G, LT-V]
- ☐ I live alone
- ☐ I live with roommates

- ☐ I live with a partner
- ☐ I live with children
- ☐ I live with a partner and children
- ☐ Other
- ☐ Prefer not to say

6. **Student's school grade** [GR-V]

- ☐ Elementary school – A' grade
- ☐ Elementary school – B' grade
- ☐ Elementary school – C' grade
- ☐ Elementary school – D' grade
- ☐ Elementary school – E' grade
- Elementary school – F' grade

7. **Please select the highest level of education you have achieved to date:** [INF, BE-V, BE-G, LT-V]

- ☐ Less than primary education
- ☐ Primary education
- ☐ Secondary education
- ☐ Post-secondary non-tertiary education (vocational)
- ☐ Bachelor's Degree
- ☐ Master's Degree
- ☐ Doctoral Degree

8. **Student's country of birth** [GR-V, LT-V]

- ☐ Greece
- ☐ Other (please specify)

9. **Which of the following best describes your family structure?** [GR-V, LT-V]

- ☐ Two-parent family
- ☐ Single-parent family
- ☐ Blended family (step-parents and/or step-siblings)
- ☐ Extended family (parents and children living with grandparents or other relatives)
- ☐ Other (please specify)

10. **How many adults (aged 18 or over) live in your house (yourself included)?** [GR-V, LT-V]

- ☐ 1 (I live alone)
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 or more

11. **How many children do you have at home?** [BE-V, BE-G, GR-V, LT-V]

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 or more

12. Professional background [INF]

- ☐ Student
- ☐ Self-taught/Food content creator (e.g., food blogger)
- ☐ Nutrition-related background (e.g., dietitian, nutritionist)
- ☐ Cooking-related background (e.g., chef, culinary trainer/book author)
- ☐ Media/communication-related background (e.g., journalism, marketing)
- ☐ Other (please specify: …)

13. Please select the option which best describes your occupation: [BE-V, BE-G, LT-V]

- ☐ Student
- ☐ Student working part-time
- ☐ Student working full-time
- ☐ Self-employed professional (i.e., physician, lawyer, accountant, etc.)
- ☐ Employed professional (i.e., physician, lawyer, accountant, etc.)
- ☐ Manual labor occupation
- ☐ Housewife/househusband
- ☐ Retired (with previous occupation)
- ☐ Unemployed
- ☐ Other [please specify]

14. What is your ethnic background? Please indicate the cultural group with which you most closely identify. [INF, BE-V, BE-G, LT-V]

Belgium	**Greece**	**Lithuania**
☐ Belgian	☐ Greek	☐ Lithuanian
☐ Italian	☐ Albanian	☐ Polish
☐ Moroccan	☐ Roma (Romani)	☐ Russian
☐ French	☐ Mixed/Multiple ethnic groups (please specify)	☐ Belarusian
☐ Turkish	☐ Other (please specify)	☐ Mixed/Multiple ethnic groups (please specify)
☐ Dutch	☐ Prefer not to disclose	☐ Other (please specify)
☐ Other European		☐ Prefer not to disclose
☐ Other non-European		
☐ Prefer not to disclose		

15. Mother's date of birth: [GR-V]

DD/MM/YY

16. Mother's highest level of education you have achieved to date: [GR-V]

- ☐ Less than primary education
- ☐ Primary education
- ☐ Secondary education
- ☐ Post-secondary non-tertiary education (vocational)
- ☐ Tertiary Education
- ☐ Master's Degree
- ☐ Doctoral Degree

17. **Please select the option which best describes mother's occupation:** [GR-V]
- ☐ Student
- ☐ Student working part-time
- ☐ Student working full-time
- ☐ Self-employed professional (i.e. physician, lawyer, accountant, etc.)
- ☐ Employed professional (i.e. physician, lawyer, accountant, etc.)
- ☐ Manual labor occupation
- ☐ Housewife/househusband
- ☐ Retired (with previous occupation), temporarily unemployed
- ☐ Other [please specify]

18. **What is mother's ethnic background? Please indicate the most relevant cultural group.** [GR-V]

Greece
☐ Greek
☐ Albanian
☐ Roma (Romani)
☐ Mixed/Multiple ethnic groups (please specify)
☐ Other (please specify)
☐ Prefer not to disclose

19. **Father's date of birth:** [GR-V]
DD/MM/YY

20. **Father's highest level of education you have achieved to date:** [GR-V]
- ☐ Less than primary education
- ☐ Primary education
- ☐ Secondary education
- ☐ Post-secondary non-tertiary education (vocational)
- ☐ Tertiary Education
- ☐ Master's Degree
- ☐ Doctoral Degree

21. **Please select the option which best describes father's occupation:** [GR-V]
- ☐ Student
- ☐ Student working part-time
- ☐ Student working full-time
- ☐ Self-employed professional (i.e., physician, lawyer, accountant, etc.)
- ☐ Employed professional (i.e., physician, lawyer, accountant, etc.)
- ☐ Manual labor occupation
- ☐ Housewife/househusband
- ☐ Retired (with previous occupation), temporarily unemployed
- ☐ Other [please specify]

22. **What is father's ethnic background? Please indicate the most relevant cultural group.** [GR-V]

Greece
☐ Greek
☐ Albanian
☐ Roma (Romani)
☐ Mixed/Multiple ethnic groups (please specify)
☐ Other (please specify)
☐ Prefer not to disclose

23. **Average monthly net household income (after taxes and deductions)?** [BE-V, BE-G, GR-V, LT-V]
    - ☐ Under 500 EUR
    - ☐ 500 EUR to 1500 EUR
    - ☐ 1501 EUR to 2500 EUR
    - ☐ 2501 EUR to 3500 EUR
    - ☐ 3501 EUR to 4500 EUR
    - ☐ 4501 EUR to 5500 EUR
    - ☐ 5501 EUR or above
    - ☐ Prefer not to say

Food-related questions (collected multiple times)

24. **How motivated are you to cook healthy meals?** 1= not motivated at all; 7 = very motivated [UNI]
25. **How motivated are you to cook environmentally friendly** (i.e., energy-efficient cooking methods, products with low emissions, reducing food waste)? 1= not motivated at all; 7 = very motivated [UNI]

26. **Food literacy (nutritional knowledge)** [BE-V, BE-G, GR-V, LT-V]

According to the national dietary guidelines, what is the ideal intake level for the following foods? Choose one out of the following options: Encourage (eat more): This food is good for your health; national guidelines say most people should increase their intake.

- Moderate (maintain/balance): This food is neutral or has a specific limit; it should be eaten in balance, not excessively.
- Limit (eat less): This food is associated with disease risk; national guidelines say intake should be kept as low as possible.
- I'm not sure: I don't know the current recommendation for this food.

Food category	Encourage (increase)	Moderate (balance)	Limit (reduce)	I'm not sure
Whole grains				
Vegetables				
Oily fish (instead of omega-3)				
Vegetable oil (instead of omega-6)				
Nuts & seeds				

Milk (and dairy)				
Legumes				
Fruits				
Fiber				
Calcium				
Fried foods & pastries (instead of TFA)				
Sugar sweetened beverages				
Salt				
Red meat				
Processed meat				

27. **Cooking-related Ambivalence** [UNI]

Please indicate the extent to which the following words describe your feelings toward changing your cooking habits/content to become/include healthier habits/options. (5-point scale, where 0 means „don't harbor this feeling", 1 means „slightly" and 5 „extremely")

- Conflicted
- Mixed
- Indecision

Please indicate the extent to which the following words describe your feelings toward changing your cooking habits/content to become/include more environmentally friendly habits/options. (5-point scale, where 0 means „don't harbor this feeling", 1 means „slightly" and 5 „extremely")

- Conflicted
- Mixed
- Indecision

28. **Intention to use cooking apps and tools** [UNI]

Imagine that you are about to cook dinner at home/Imagine you are in the process of deciding what to cook for your next content post, and you are searching for a recipe on the internet.

1. Would you be willing to use a novel online recommendations tool that can suggest you how to make your recipes you find/upload online healthier? (1 = not willing at all, 5 = very much willing)
2. Would you be willing to use a novel online recommendations tool that can suggest you how to make your recipes you find/upload online more environmentally friendly (i.e., energy-efficient cooking methods, reducing food waste)? (1 = not willing at all, 5 = very much willing)

29. **Eating habits** (rPDQS; 5-point scale; Less than once a week; Once a week; 2-4 times per week; (almost) daily; 2 or more times per day) [BE-V, BE-G]

V1	Processed meat (minced meat, sausage, bacon, charcuterie)
V2	Red meat (lamb, beef, pork)
V3	Fish (cod, tuna, salmon, ...)
V4	Dairy (milk, yoghurt, cheese, ...)
V5	Fastfood (pizza, fried dishes, ready-made meals, ...)
V6	Sugary drinks (soda, energy drinks, sweetened drinks, ...)
V7	White grains (white bread, white pasta, ...)

V8	Wholewheat grains (volkorenbrood, volkoren pasta, ...)
V9	Sweet snacks and desserts (cookies, pie, pastries, candy, ice cream, ...)
V10	Legumes (beans, chickpeas, lentils, ...)
V11	Vegetables
V12	Fruit
V13	Nuts and seeds

30. When preparing food and cooking, do you usually use/use (tick as many answers as applicable): [GR-V, LT-V]

- ☐ Olive Oil
- ☐ Seed Oil
- ☐ Margarine
- ☐ Butter

31. **Food Insecurity**: Over the last 12 months, did you experience the following due to a lack of money or other resources: (yes, no, I don't know, I'd rather not say**)** **[BE-V, BE-G]**

a) You worried that you didn't have enough to eat?
b) You were not in the possibility to eat healthy and nutritious?
c) You could only eat a limited number of food products?
d) You had to skip a meal?
e) You ate less than you actually should have?
f) Your household did not have food anymore?
g) You were hungry but you did not eat?
h) You did not eat for an entire day?

Evaluation of the tools and interventions (post-intervention)

Evaluation of the MyRecipeWatch [BE-V, BE-G, GR-V, LT-V]

1. How often did you use MyRecipeWatch in the past two weeks?

- ☐ Daily
- ☐ 3–6 times per week
- ☐ 1–2 times per week
- ☐ Less than once a week
- ☐ Never

2. How easy was it to navigate and use MyRecipeWatch? (7-point scale; "very easy" to "very difficult")
3. How useful was MyRecipeWatch in helping you identify healthier recipes? (7-point scale; "very useful" to "no useful at all")
4. Did MyRecipeWatch help you make healthier food choices? (7-point scale; "very useful" to "no useful at all")
5. How easy was it to incorporate MyRecipeWatch suggestions into your daily cooking? (7-point scale; "very easy" to "very difficult")
6. How logical did you find the suggestions provided by MyRecipeWatch? (7-point scale; "very logical" to "no useful at all")
7. Overall, how satisfied are you with MyRecipeWatch? (7-point scale; "very satisfied" to "no satisfied at all")
8. How likely are you to use MyRecipeWatch in the future? (1= not likely at all; 7 = very likely)
Add megastudy items:
9. How much would you like to share information about MyRecipeWatch with your friends? (1= not al all; 7= quite a bit)
10. How often do you eat home-cooked meals? [BE-V, BE-G, GR-V, LT-V]

- ☐ Never
- ☐ Rarely (less than once a month)
- ☐ Occasionally (a few times a month)
- ☐ About once a week
- ☐ Several times a week
- ☐ Almost everyday
- ☐ Everyday

11. How often do you use recipes when cooking meals? [BE-V, BE-G, GR-V, LT-V]

- ☐ Never
- ☐ Rarely (less than once a month)
- ☐ Occasionally (a few times a month)
- ☐ About once a week
- ☐ Several times a week
- ☐ Almost everyday
- ☐ Everyday

12. To what extent do you find the MyRecipeWatch recommendations for you personally: (1 = not at all; 7 very much) [BE-V, BE-G, GR-V, LT-V]

- ☐ Useful
- ☐ Needed
- ☐ Informative

Evaluation of the traditional nutrition education methods [GR-V]

1. How easy was it to understand and follow the information provided during [please specify] (e.g., the cooking class)? (7point scale; "very easy" to "very difficult")
2. Did the education help you improve your nutrition knowledge? (7-point scale; "a lot" to "not at all")
3. Did the education help you improve your sustainability knowledge? (7-point scale; "a lot" to "not at all")
4. How easy was it to apply the [please specify] (e.g., cooking classes, lessons) in your daily diet or meal planning? (7-point scale; "very easy" to "very difficult")
5. How motivated are you to cook healthy meals after taking this [please specify] (e.g., cooking class)? 1= not motivated at all; 7 = very motivated
6. How motivated are you to cook environmentally friendly after taking this [please specify] (e.g., cooking class)? 1= not motivated a t all; 7 = very motivated
7. Overall, how satisfied are you with the [please specify] (e.g., cooking classes, nutrition education program)? (7-point scale; "very satisfied" to "no satisfied at all")

Pre- and Post- Influencer Training Questionnaire [INF]

Evaluation of the Responsible Cooking Alliance (RCA) (to be integrated in the post-intervention questionnaire)

1. How often did you use Responsible Cooking Alliance in the past two weeks?
   - ☐ Daily
   - ☐ 3–6 times per week
   - ☐ 1–2 times per week
   - ☐ Less than once a week
   - ☐ Never
2. How easy was it to navigate and use Responsible Cooking Alliance? (7-point scale; "very easy" to "very difficult")

3. How useful was Responsible Cooking Alliance in helping you create healthier recipes? (7-point scale; “very useful” to “no useful at all”)
4. How useful was Responsible Cooking Alliance in helping you create more environmentally friendly recipes? (7-point scale; “very useful” to “no useful at all”)
5. How easy was it to incorporate Responsible Cooking Alliance suggestions into your existing content style and values? (7point scale; “very easy” to “very difficult”)
6. How logical did you find the suggestions provided by Responsible Cooking Alliance? (7-point scale; “very logical” to “no logical at all”)
7. Overall, how satisfied are you with Responsible Cooking Alliance? (7-point scale; “very satisfied” to “no satisfied at all”)
8. How confident do you feel in your ability to use Responsible Cooking Alliance in your recipe-related content creation? 1= not confident at all; 7 = very confident
9. How likely are you to use Responsible Cooking Alliance in the future? 1= not likely at all; 7 = very likely

Evaluation of the nutrition and sustainability education program [INF]

10. How easy was it to understand and follow the information provided during the education program? (7-point scale; “very easy” to “very difficult”)
11. Did the education help you improve your nutrition knowledge? (7-point scale; “a lot” to “not at all”)
12. Did the education help you improve your sustainability knowledge? (7-point scale; “a lot” to “not at all”)
13. How easy was it to apply the education content into your existing content style and values? (7-point scale; “very easy” to “very difficult”)
14. How important is the healthiness aspect in the development of the content you share with your followers? (1= not important at all; 7 = very important)
15. How important is the sustainability aspect in the development of the content you share with your followers? (1= not important at all; 7 = very important)
16. How motivated are you to cook environmentally friendly after taking this education program? (1= not motivated at all; 7 = very motivated)
17. Overall, how satisfied are you with the nutrition education program? (7-point scale; “very satisfied” to “no satisfied at all”)

Evaluation of the Foodbag web application intervention [BE-G, BE-V]

1. **How often do you order Foodbag meals on average?**

- ☐ Elke week
- ☐ Elke twee weken
- ☐ Elke maand

2. **Motivation and attitude**

How important are the following factors to you when choosing Foodbag meals? (scale 1-7 from 1 ‘not important at all’ to 7 ‘very important’)

- ☐ Eating healthy
- ☐ Sustainability and environmental impact
- ☐ Eating less meat
- ☐ Taste and preference of the household
- ☐ Price/ budget
- ☐ Ease and preparation time
- ☐ Discovering new tastes or ingredients

3. **Evaluation of the swaps**: What is your opinion about the proposed ingrediënt swaps? (Scale 1–7: Completely disagree → Completely agree)

- ☐ The suggestions were clear and understandable.
- ☐ The suggestions were useful for me.
- ☐ The proposed alternatives fit with my taste preferences.
- ☐ The swaps were easy to apply during cooking.
- ☐ The meals with swaps tasted as good as the original recipe.

4. **Barriers:** When you did not accept a suggestion, what were the most important reasons?

- ☐ I was scared it would be less tasty.
- ☐ My family wanted the original ingredient.
- ☐ I didn't know the alternative ingredient.
- ☐ The alternative was more difficult to prepare.
- ☐ The original recipe was already healthy enough.
- ☐ Habit/ I didn't think about why.
- ☐ Other:

5. **Impact**

- ☐ Because of the suggestions of Foodbag I started thinking more consciously about my ingredient choices.
- ☐ I learned about new, healthy ingredients due to the swap suggestions.