Information and Irregular Migration: Pre-analysis plan

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Abstract

Policy projections and recent research suggest that large numbers of irregular migrants from Sub-Saharan Africa will continue to attempt to make their way to Europe over the next few decades. In response, European countries have made and continue to make significant investments in information campaigns designed to discourage irregular African migration. These campaigns are frequently accompanied by evaluations of some sort but, to our knowledge, none have involved a randomized controlled trial with a representative sample and actual migration among the outcomes of interest. This pre-analysis plan describes the design of such a field experiment that addresses the following core questions: Are beliefs about migration-related risks, interest in attempting irregular migration, and actual migration decisions responsive to information campaigns highlighting the risks of the migration journey? The project takes place in two states—Edo and Delta—in the South-South region of Nigeria, a major Sub-Saharan African source of irregular migrants to Europe.
1 Overview

This study involves a randomized controlled trial that provides detailed, accurate information about the likelihood of being granted asylum in Europe and the risks of irregular migration from Nigeria to Europe, via the Sahara Desert and the Mediterranean Sea. Baseline interviews are conducted with 3,200 households in Edo and Delta states, and treated households receive information at this point. Outcomes including beliefs about irregular migration-related risks, interest in attempting irregular migration, and actual migration attempts are then measured on the basis of subsequent individual- and household-level interviews, with a midline targeted for six months after treatment and an endline after twelve months. We also conduct a separate decomposition experiment with 1,000 subjects, in which individuals are treated with only some of the components included in the main information treatment, in order to gauge these components’ relative efficacy.

This pre-analysis plan was registered in December 2021, prior to endline data collection and any analysis of behavioral midline data, and subsequent to baseline, treatment implementation, and a preliminary analysis of certain migration-related beliefs at midline. Central features of the study design described here were also presented at the EPSA meeting in Vienna in May 2018, at the EGAP meetings in Nairobi in June 2018, and at the WGAPE-Berlin meeting in April 2019. The ethical implications of this study were discussed in a special session of the EGAP meetings in Wageningen in October 2018.

2 Experimental design

2.1 Population and recruitment

Our study’s population of potential subjects includes all adults aged 18–39 residing in Edo or Delta states in Nigeria. We gather a complete set of geographic coordinates for residential structures in the two states, then randomly sample a set of enumeration areas, a set of
buildings and households within buildings, collect roster information, and complete an in-depth questionnaire with a randomly sampled eligible individual within each household.

Four elements of our recruitment strategy combine to ensure that our sample includes a sufficient number of potential migrants:

1. We conduct our study in a high-migration region. Nigeria is one of the most important countries of departure for migrants attempting to follow the “Mediterranean route” to Europe, and Edo and Delta states are by far the most common states of origin within Nigeria.

2. We oversample from urban areas, as international migration disproportionally originates in urban contexts.

3. We limit our individual-level sample to younger adults, since the vast majority of irregular migrants from Nigeria appear to fall in this age bracket. We sample both women and men, because Nigeria—unlike some other West African states—produces significant outflows of both.

4. We track complete household rosters, which minimizes attrition and dramatically increases the number of individuals for whom data will be available. Migrating individuals are difficult to interview, but households in Edo and Delta states appear to rarely relocate in their entirety.

2.2 Interventions

Our study’s information interventions are inspired by those that have been funded by European governments, many of which focus on features of the (often harrowing) migration journey. Migration decisions are believed to involve a weighing of risks, and the objective of our treatments is to provide factual, truthful information about the many risks involved in attempting irregular migration along the Mediterranean Route. Our design includes two waves of treatments, described below.
**Intervention 1: Information treatment**

We provide a set of treated households in Nigeria with a realistic summary of the chances of successfully reaching Europe and the risks of irregular migration, with an emphasis on the risk of death, injury, exposure to sexual violence, and enslavement along the migrant trail across the Sahara desert and the Mediterranean Sea. The relevant control group does not receive this information from us. This treatment is delivered in the form of an in-person script and a video message with testimonials from migrant returnees, who attempted the journey but did not reach Europe and were repatriated. The treatment also includes an active processing component designed to ensure subject engagement and to help overcome motivated reasoning.

The informational content builds on qualitative and survey research carried out in Edo state’s capital, Benin City, in 2018, which suggested high levels of uncertainty and widespread misinformation about irregular migration-related risks along the Mediterranean route. This prior work suggests that the information provided in intervention 1 is (a) not already widely known and (b) is relevant for migration-related decision-making in our research setting.

This treatment is comprehensive and intense in order to enable us to see whether this kind of information intervention can lead to sustained, long-term, behavioral change. This remains an important open question and one that is particularly relevant for practitioners, as our script mirrors components of existing policy initiatives. However, it means that we will not be able to assess the efficacy of any one particular statement of fact. We partially separate elements of this treatment in our second intervention described below.

We include the informational script, which is one central element of intervention 1, in the following. All of the facts mentioned are accurate to the best of our knowledge at the time the script was written, and we indicate sources as they were provided to subjects upon request.

Now, we would like to share some very important information with you. This information is especially important for anyone who is thinking about leaving to go to Europe.
All of the information that we will tell you is true. If you want, we can tell you the source for each piece of information. We are not telling you what to do. We are not from the government. For us, it is important that you know these important facts so that you can make good decisions.

Most Nigerians who leave to go to Europe travel across the Sahara desert and the Mediterranean Sea. The passage usually lasts at least several weeks but sometimes lasts many months, and there is a risk of being injured or dying along the route.\(^1\) Most people think that it would be different for them and that they would be able to make it, but that is not the case. Many people die, including people like you, [men/women] of your age. We don’t know exactly how many people die. One reason is that the bodies of those who drown in the sea or are left behind in the desert are often not found.\(^2\)

But we know from interviews that two out of every three people who made the journey said that they had seen someone die along the route. Most people said it happened in Libya. Those who have done the journey say that more people die in the desert than the sea.\(^3\) And one in every five people had seen so many people die that they could not even give a number, but just said “many.”\(^4\) Migrants can die for many reasons when they travel across the desert and the sea. Many die from sickness and accidents. Others are murdered, drown, starve, or die from not getting enough to drink.\(^5\)

Those who make the journey have to wait in connection houses at stops along the way. Many of those who have made the journey say that they were not allowed to leave, and say they were forced to make additional payments along the route that they did not expect. Some people are forced to sell sex, sold into slavery, or killed, especially if they cannot pay extra money along the route or if they get sick.\(^6\)

Right now, many, many thousands of Nigerians are stuck in Libya, because they have not been able to cross the Mediterranean Sea.\(^7\) Even if you get on a boat, the connection men will usually only give enough gas to get to international waters. In the past, most who were rescued from boats were brought to Italy, but now most are immediately returned to Libya. That is why there are so many Nigerians in Libya now.

We estimate that about 200,000 Nigerians attempted to reach Europe along this route in 2018. About 20,000 Nigerians complete the journey to Europe every year and apply for asylum. But most Nigerians that make it to Europe are not allowed to stay and are to be sent back to Nigeria.\(^8\) Each case is decided individually, and you have to prove that you were persecuted in Nigeria, for example because of your race, religion, or political opinion. Between 2011 and 2017, only one out of every four Nigerian applicants was granted asylum or otherwise allowed to stay.

\(^3\)Mixed Migration Hub (MHub) survey interviews 2017.
\(^6\)Taub 2017, “We have no choice,” *The New Yorker*.
\(^7\)IOM 2016, Libya Plan of Action.
\(^8\)European Statistical Office (Eurostat) 2011-2018 data on asylum applicants from Nigeria in European Union (EU) and European Free Trade Association (EFTA) countries
**Intervention 2: Decomposition experiment**

We implement a second experiment with a smaller group of subjects beyond the scope of intervention 1, in which we treat individuals with only one set of components of the information treatment. These sets of components are:

1. Factual information, including a detailed, fact-heavy script focusing on the risks of the migration journey and the likelihood of being granted asylum in Europe, as shown above;

2. Factual information in combination with a motivated reasoning exercise, designed to overcome a bias toward optimism in how individuals assess risk when they face it personally as opposed to when other comparable individuals do;

3. Emotionally charged content, delivered by way of a video of interviews with migrant returnees, who attempted the irregular migration journey but did not reach Europe.

Each of these treatments is delivered to individuals by way of a preset video. A fourth subset of individuals functions as control group and does not receive any of these materials.

### 2.3 Ethical considerations

We are conscious of the ethical complexity of this research. An overarching feature of the problem under investigation is the fact that the migration choice involves extreme security risks (risks of death, injury and other mistreatment along the migration route at many points). Discouraging migration, however, risks limiting economic and other opportunities available to those (few) migrants who successful complete the journey and are allowed to stay in Europe. Given these complexities, our study design was discussed in depth by an interdisciplinary group of academics and practitioners, as part of a specially convened session on research ethics at the EGAP meetings in Wageningen in October 2018.
We have taken multiple steps to address these concerns. First, our study involves no deception, either about the purpose of the research, or in any of the information provided to treated subjects. All information provided is truthful, to the best of our knowledge. Second, these treatments are similar to real-world information campaigns funded by the UK, the European Union, the US and other governments. Third, previous survey and qualitative interview material suggest that potential migrants in our study context are uncertain and misinformed about the dangers of the journey by road and sea, at least in part as a result of bias toward (increasingly rare) success stories and the fact that traffickers and their affiliates actively spread misinformation. As such, our study’s information treatments are designed to reduce risks of injury and death along the route.

2.4 Procedures and timeline

Outline of procedures: We first georeference all residential structures in Nigeria’s Edo and Delta states from satellite imagery, draw enumeration areas, and random select structures for inclusion in our sample. Enumerators then locate these structures using their GPS-enabled devices, and randomly select households. After obtaining the head of household’s consent, enumerators complete a brief household survey module and roster using a tablet, and the device randomly selects an eligible individual from each household roster for an in-depth interview.

The enumerator next requests consent from the sampled individual and conducts an hour-long in-depth interview, including questions on basic demographics, personal and family migration histories, migration-relevant attitudes and beliefs, risk attitudes, and socioeconomic indicators. Toward the end of the interview, the enumerator asks to convene all available members of the household in order to watch a short video and answer a couple of quiz-style questions. For randomly selected treatment households, the tablet then displays the treatment materials for intervention 1, including the migration information script, video, and exercises.
These in-person baseline visits conclude with the completion of a separate contact information form. For their participation at this stage, subjects receive a small gift (500 Naira mobile credit, plus additional credit for better-than-average guesses on a set of incentivized knowledge questions), in line with locally appropriate, standard practice. Subjects also stand to receive similar compensation for their participation in subsequent rounds of data collection.

Baseline enumeration is followed by a short Covid-19-focused questionnaire approximately three months later, and then midline phone interviews with both sampled individuals and the heads or senior members of sampled households, which are targeted to occur approximately six months post-recruitment. While primarily a phone survey, the midline includes a short set of questions about irregular migration that are delivered via text message, in case voice interactions induce demand effects. If neither the sampled individual nor any senior member of his or her household can be reached for an interview by phone, we deploy enumerators to follow up in person, and if necessary attempt to gather information about their whereabouts from alternative contacts, such as neighbors.

Following the midline and several weeks prior to endline survey activities, we implement intervention 2. For this intervention, a subset of subjects that did not receive any migration information as part of the first intervention is randomly assigned to a control and three treatment conditions. In each of the respective treatment groups, subjects receive migration-related factual information only, factual information in combination with a motivated reasoning exercise, or emotionally charged content, as described above. Treated subjects receive WhatsApp and/or text messages as well as follow-up phone calls directing them to the applicable video. In order to achieve high levels of compliance and consistent treatment delivery in the absence of enumerators’ physical presence, the videos are relatively short, about three minutes in length.

Finally, we carry out an endline phone survey, approximately a year after the baseline. As with the midline, we conduct interviews both with sampled individuals as well as heads
or senior members of the households in the sample. We may also complement our endline data with an additional in-person follow-up survey, pending funding.

Timeline:

- November–December 2019: Pre-baseline survey
- March and October–December 2020: Baseline survey and information treatment (intervention 1), staggered due to Covid-19 restrictions
- May–August 2020: Covid-19-related survey using partial baseline and pre-baseline samples
- April–May 2021: Midline phone survey
- August–September 2021: Midline in-person tracking and follow-up
- November 2021: Decomposition experiment (intervention 2) using partial untreated baseline and pre-baseline samples
- December 2021: Pre-analysis plan filed, prior to endline data collection and analysis of behavioral midline data, subsequent to baseline and treatment implementation and preliminary analysis of certain migration-related beliefs at midline
- Beginning in December 2021: Endline

Implementing partner: Our principal implementing partner is Innovations for Poverty Action (IPA) Nigeria, with Hanovia Limited a core contractor for baseline survey activities. Enumerators receive multiple days of training on sampling, consent, and interview protocols. They are supervised at all times by a local research associate, with principal investigators on site for key survey implementation phases and training sessions.
2.5 Sample size and power

Sample sizes: We recruit 3,200 households at baseline with consenting heads of household and selected individuals, of which 1,600 are assigned to the information treatment (intervention 1) and the remainder to the control group. For the decomposition experiment (intervention 2), we assign 250 individuals to each of the three treatment groups, with another 250 assigned to the control group, for a total of 1,000 subjects for this experiment. About half of these subjects are drawn from the first intervention’s control group in the first batch of the baseline, for whom one-year follow-up data has already been collected in the course of the midline survey, and half are drawn from the subject pool available from our pre-baseline survey.

Power calculations: We implemented a “design declaration” in November 2018 in which we specified assignment schemes, estimands, and estimation strategies. Monte Carlo analysis then permits us to calculate power. Assumptions about migration attempt rates and error correlations are grounded in prior survey data collected in 2018. Full details of our power analysis along with other diagnostics on this design, and comparisons with other designs, can be seen at http://www.columbia.edu/~mh2245/designs/Nigeria_irregular_migration.html. In a basic comparison of group means with significance level 0.05, 80% power, and unit standard deviations, the MDE is .099 of a standard deviation for a sample of 3,200 individuals.

2.6 Randomization

Random selection of enumeration areas and buildings was carried out in R, with oversampling of urban areas. We use weights to adjust for this oversampling as needed when we claim representativeness. The random sampling of households and individuals was implemented in SurveyCTO, as were the randomized experimental assignments for the information treatment (intervention 1). Randomization for the decomposition experiment (intervention 2) was again carried out in R.
2.7 Hypotheses

Primary hypotheses

Our primary hypotheses concerning the information treatment (intervention 1) are:

• **H1 (effects on beliefs):** Exposure to the information treatment will increase perceived risks of irregular migration and decrease the perceived likelihood of being granted asylum in Europe.

• **H2 (effects on motivated reasoning):** Exposure to the information treatment will reduce the gap between beliefs about migration-related risks (and benefits) to others and to oneself.

• **H3 (effects on intent):** Exposure to the information treatment will reduce interest in attempting to irregularly migrate.

• **H4 (effects on behavior):** Exposure to the information treatment will reduce irregular migration attempts.

Secondary hypotheses

Our secondary hypotheses concerning the information treatment (intervention 1) are:

• **H5 (effects on uncertainty):** Exposure to the information treatment will reduce uncertainty in beliefs about the risks of migration and the likelihood of being granted asylum in Europe, on average.

• **H6 (effects on substitution):** Exposure to the information treatment will increase interest in and actual regular migration attempts, including those with domestic or regional destinations.
Heterogeneous effects

We anticipate the following heterogeneous effects for the listed hypotheses:

- **H7 (heterogeneity across prior beliefs):** Effects for H1, H3, H4, and H6 will be stronger for subjects who initially severely underestimate risks. Effects for H2 will be stronger for those for whom we initially observe large gaps between beliefs about risks to others and oneself. Effects for H5 will be stronger for subjects who initially believe risks to be substantial.

- **H8 (heterogeneity across prior intent):** Effects for H1–H4 and H6 will be stronger for subjects who initially report interest in attempting to irregularly migrate.

- **H9 (heterogeneity across prior uncertainty):** Effects for H1–H6 will be stronger for subjects who are initially uncertain in their beliefs about the risks of the migration journey.

- **H10 (heterogeneity across risk profiles):** Effects for H3, H4, and H6 will be weaker for relatively risk-acceptant subjects.

- **H11 (heterogeneity across observed cognitive function and exposure to stressors):** Effects for H1–H6 will be weaker for subjects with lower levels of observed cognitive function, for those with greater prior exposure to poverty, and for those with greater prior exposure to violence.

Decomposition

For the decomposition experiment (intervention 2), we hypothesize that each of the three treatments will have effects such as those in H1–H3 and H5. For this set of relevant hypotheses, we will assess heterogeneity across prior beliefs, intent, uncertainty, risk profiles, observed cognitive function and exposure to stressors, as above. We do not expect to ob-
serve effects on behavior as in H4 and H6, given the limited time between the decomposition experiment and endline data collection.

We hypothesize that the treatment combining factual information with a motivated reasoning exercise will have the largest effect under H2. We are otherwise agnostic about which of the treatments in the decomposition experiment are associated with the largest impacts, but will evaluate the hypothesis that their effects differ.

2.8 Outcome measurement

We include below tables with details concerning the core outcome measures for our hypotheses. Survey items are presented in four groups, which correspond to questions about (1) migration-related beliefs and risk perceptions, including motivated reasoning, (2) migration-specific intent and interest in regular and irregular migration, (3) migration behaviors, again for both regular and irregular migration, and (4) measures of respondent uncertainty. Note that data on migration behaviors and histories was collected from main individual respondent, heads or senior members of households, or other available contacts, as required. We also collect data on ancillary outcomes including relevant community norms (such as the stigma associated with “cutting out” of Nigeria), and economic, social, and psychological well-being.
<table>
<thead>
<tr>
<th>Relevant primary or secondary hypothesis</th>
<th>Description of hypothesis</th>
<th>Description of outcomes</th>
<th>Variable name in survey forms</th>
<th>Survey question</th>
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</thead>
<tbody>
<tr>
<td>H1, H2</td>
<td>Effects on beliefs, effects on motivated reasoning</td>
<td>Perceived risks of irregular migration; perceived likelihood of being granted asylum in Europe; gap between beliefs about migration-related risks (and benefits) to others and to oneself</td>
<td>asyl_acc</td>
<td>Out of 100 Nigerians that apply for asylum in Europe, how many do you think are allowed to stay?</td>
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<td>europe_possible</td>
<td>We’d like to know how likely you think it is that you would be able to go yonder all the way to Europe, if you wanted to. Let’s say you had 100 attempts. How many of these attempts would succeed?</td>
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<td>europe_possible_compare</td>
<td>And how would you describe your chances of going yonder all the way to Europe, if you wanted to, RELATIVE TO OTHER NIGERIANS that try?</td>
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<td>asyl_likely</td>
<td>We’d like to know how likely you think it is that your claim would be accepted if you applied for asylum in Europe. Let’s say you had 100 attempts. How many of these attempts would succeed?</td>
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<td>asyl_likely_compare</td>
<td>And how would you describe the chances that your asylum claim would be accepted in Europe RELATIVE TO OTHER NIGERIANS that try?</td>
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<td>journey_injury_women</td>
<td>Physical injury or illness</td>
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<td>journey_death_women</td>
<td>Death</td>
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<td>journey_sexabuse_women</td>
<td>Sexual abuse, sexual violence, forced sex work</td>
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<td>journey_slavery_women</td>
<td>Abduction, kidnapping, slavery</td>
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<td>journey_witness_women</td>
<td>Directly witnessing death along the journey</td>
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<td>journey_injury_men</td>
<td>Physical injury or illness</td>
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<td>journey_death_men</td>
<td>Death</td>
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<td>Abduction, kidnapping, slavery</td>
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<td>journey_witness_men</td>
<td>Directly witnessing death along the journey</td>
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<td>remain_route</td>
<td>Remain along the route</td>
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<td>returned_libya</td>
<td>Returned to Nigeria from somewhere else on the route</td>
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<td>returned_europe</td>
<td>Returned to Nigeria from Europe</td>
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<td>stay_europe</td>
<td>Able to stay in Europe</td>
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<td>journey_duration</td>
<td>When you think about someone like you leaving Nigeria to follow land to Europe, how long do you think this person's journey would take, as far as you know?</td>
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<tr>
<td>Relevant primary or secondary hypothesis</td>
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<td>H3, H6</td>
<td>Effects on intent, including possible substitution</td>
<td>Interest in attempting to migrate irregularly or regularly</td>
<td>migration_intent</td>
<td>To what extent, if at all, would you like to move to another country to live?</td>
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<td>migration_prep</td>
<td>What kind of planning or preparation have you done in order to move to another country to live?</td>
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<td>migration_destination</td>
<td>If you were to move to another country, where would you most want to live?</td>
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<td>migration_irregular</td>
<td>How interested would you say you are in following land across the desert and the water to go to another country? There are no right or wrong answers, please just tell us your honest opinion. We will use it only for academic research.</td>
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<td>migration_internal</td>
<td>How much, if at all, would you like to move to another part of Nigeria?</td>
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<td>migration_info</td>
<td>Since we interviewed you on [baseline_date], have you sought out information about following land to Europe?</td>
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<td>info_person</td>
<td>Since we interviewed you on [baseline_date], have you spoken with anyone about following land to Europe?</td>
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<td>income_to_stay</td>
<td>What is the smallest amount of money you would need to earn per MONTH (in Naira) to NOT think about leaving for Europe?</td>
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<tr>
<td>H4, H6</td>
<td>Effects on behavior, including possible substitution</td>
<td>Irregular and regular migration attempts, including those with domestic or regional destinations</td>
<td>left_town</td>
<td>Since we interviewed you (on [baseline_date]), did [initial_roster, repeated for each baseline household member, including main respondent] leave the city or village to live somewhere else?</td>
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<td>left_nigeria</td>
<td>Did [initial_roster] leave to live in a country other than Nigeria?</td>
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<td>left_for_europe</td>
<td>Did [initial_roster] leave to try to live in Europe?</td>
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<td>followed_land</td>
<td>Did [initial_roster] try to follow land to Europe?</td>
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<td>followed_land_count</td>
<td>And how many times did [initial_roster] try this?</td>
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<td></td>
<td>left_now</td>
<td>Where is [initial_roster] now?</td>
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<td>family_routes</td>
<td>Since we interviewed you (on [baseline_date]), have any of your non-household family members travelled through the desert by routes?</td>
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<td>friend_routes</td>
<td>Since we interviewed you (on [baseline_date]), have any of your friends travelled through the desert by routes?</td>
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<td>own_routes</td>
<td>And just to be sure, have you ever tried to travel through the desert by routes since we last interviewed you (on [baseline_date])?</td>
</tr>
<tr>
<td>H5</td>
<td>Effects on uncertainty</td>
<td>Uncertainty in beliefs about the risks of migration and the likelihood of being granted asylum in Europe</td>
<td>how_sure_asyl_acc</td>
<td>And how sure would you say you are about this [response to item asyl_acc]? Your answer to this question won’t affect the amount of money you’ll get for your guess.</td>
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<td>how_sure_journey</td>
<td>And how sure would you say you are about what happens to people along the route?</td>
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<td>how_sure_results</td>
<td>And how sure would you say you are about how many people are returned and how many people are able to stay in Europe?</td>
</tr>
</tbody>
</table>
3 Analysis plan

3.1 Estimation

We will in general estimate treatment effects on outcomes of interest using an intent-to-treat approach. Our primary comparisons will be households (and individuals within those households) assigned to receive migration information versus those in the control group (intervention 1), and those assigned to particular treatment components against those assigned to any other components or none at all (intervention 2).

We will report estimations that control for pre-treatment measurements of the relevant outcome variable, if available and unless the outcome itself captures change from baseline. We will include additional control covariates to adjust for possibly remaining imbalance across assignment groups, particularly covariates listed below for randomization checks. We will use clustered standard errors as appropriate due to clustering in treatment assignments, and we will use survey weights and appropriately declare features of our survey design when making representative claims.

For the decomposition experiment (intervention 2), we will measure whether subjects engaged with treatment content (e.g. by clicking through to receive materials on their phone), and we will report results from an instrumental variable regression using assigned treatment as an instrument for treatment take-up.

3.2 Randomization checks

We will report the extent to which observable covariates are balanced across treatment conditions, as expected. Relevant baseline variables include state, age, sex, marital status, education, employment, assets, observed cognitive function, risk attitudes, and baseline-available outcome measures.
3.3 Heterogeneous effects

We will report heterogeneous effects as indicated in hypotheses H7–H11 for available treatment-control group comparisons, either by using separate samples or interactions. We will principally estimate heterogeneity across prior migration-related beliefs and subjects’ reported uncertainty, prior intent to migrate, risk attitudes, and observed cognitive function and stress exposure.

3.4 Compliance

We will compare units that are in compliance with their treatment/control assignment with those that are not (e.g. because of refusal to engage with the migration information package for intervention 1, or because of failure to click through to materials for intervention 2), and report mean differences and associated statistics for baseline variables including state, age, sex, marital status, education, employment, assets, observed cognitive function, risk attitudes, and baseline-available outcome measures.

In the case of substantial non-compliance, we will report instrumental variable estimates for the relevant outcomes and comparisons, where random assignment serves as an instrument for actual treatment status.

3.5 Attrition

We will compare endline-attrited and non-attrited units by computing mean differences and associated statistics by treatment status and for baseline variables including state, age, sex, marital status, education, employment, assets, observed cognitive function, risk attitudes, and baseline-available outcome measures. In the case of substantial attrition, we will preprocess the data by matching on these relevant variables and calculate attrition-adjusted treatment effects. However, we also anticipate that differential attrition across treatment groups in itself may constitute a finding of interest, in particular to the extent that attrition
is attributable to migration.

3.6 Manipulation checks

We will report results from a set of questions that check engagement with treatment materials, as well as immediate effects on relevant migration measures collected directly after exposure to treatment.

3.7 Backstop

For unforeseen analysis decisions, we will refer to the Green lab standard operating procedures documented at https://alexandercoppock.com/Green-Lab-SOP/Green_Lab_SOP.pdf.