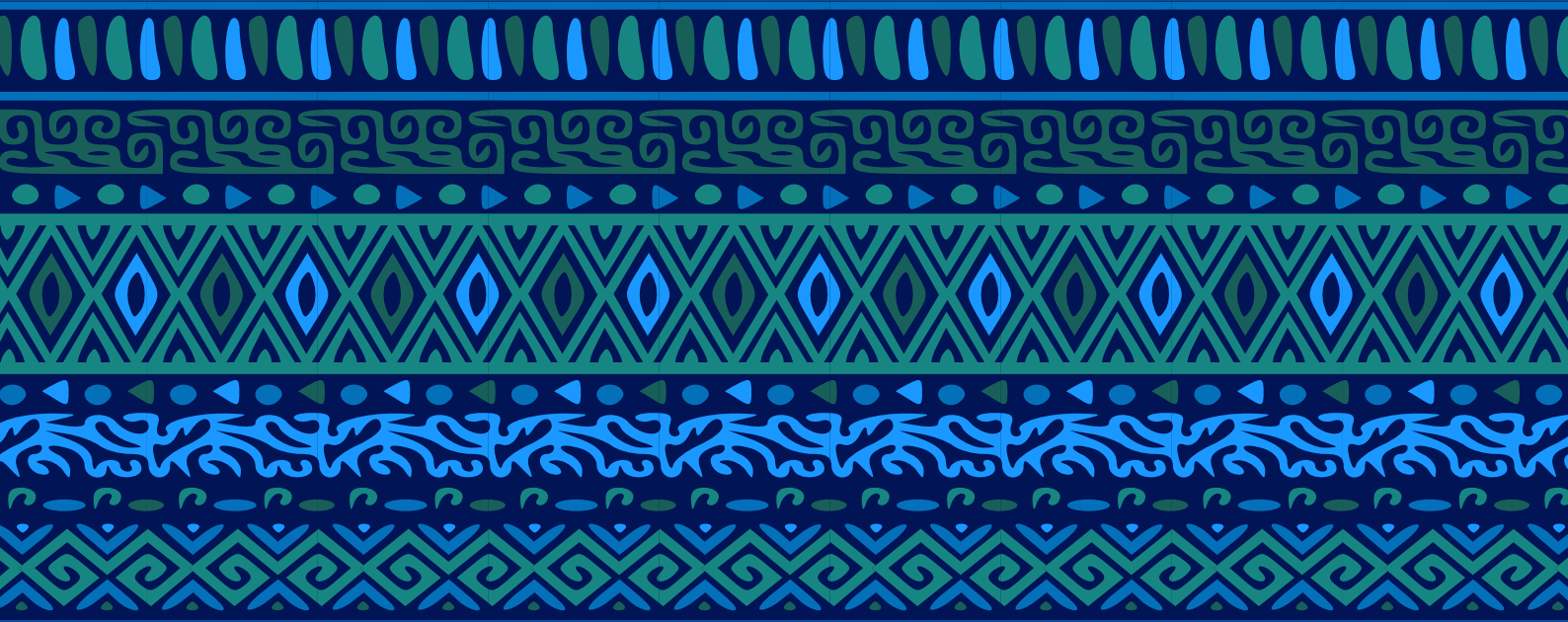


Irregular Migration from West Africa

**ROBUST EVALUATION  
OF PEER-TO-PEER  
AWARENESS-RAISING  
ACTIVITIES IN  
FOUR COUNTRIES**



**IOM**  
UN MIGRATION

GLOBAL DATA  
INSTITUTE

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Irregular Migration from West Africa

# **ROBUST EVALUATION OF PEER-TO-PEER AWARENESS-RAISING ACTIVITIES IN FOUR COUNTRIES**

O. Hebie, M.F.E. Sessou<sup>1</sup> and J. Tjaden<sup>2</sup>



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# LIST OF ACRONYMS AND ABBREVIATIONS

COVID-19	coronavirus disease 2019
cRCT	cluster randomized controlled trial
DESA	United Nations Department of Economic and Social Affairs
DTM	Displacement Tracking Matrix
GMD	Gambian dalasi
GNF	Guinea franc
GPS	Global Positioning System
ICC	intracluster correlation coefficient
IDP	internally displaced persons
ILO	International Labour Organization
IOM	International Organization for Migration
ITT	intention to treat
LATE	local average treatment effect
MaM	Migrants as Messengers
NGN	Nigerian naira
NGO	non-governmental organization
RCT	randomized controlled trial
UNHCR	Office of the United Nations High Commissioner for Refugees
URR	Upper River Region
WCA	West and Central Africa
XOF	West African CFA franc



# EXECUTIVE SUMMARY

Development organizations, non-governmental organizations and international organizations engage in efforts to raise awareness of the risks associated with irregular migration journeys. The evidence on the effectiveness of these campaigns remains limited. IOM was one of the first organizations to assess a variety of information and awareness-raising campaigns using robust evaluation methods starting in 2018. This report contributes to the emerging evidence base by evaluating the causal effects of the Migrants as Messengers Phase 2 (MaM-2) project conducted by IOM in four West African countries, namely the Gambia, Guinea, Nigeria and Senegal.

The project's overall goal was to empower young people to make informed decisions on migration. It leveraged the experiences of returning migrants who underwent irregular migration journeys. These returnees were directly involved in the design and development of the content of community-engagement activities.

To assess the causal effects of the interventions developed by the IOM country and regional teams, a cluster randomized controlled trial approach was used. Based on a probability sample of households in one administrative subdivision per country, the study assessed the effects of awareness-raising activities on knowledge, perceptions, attitudes and intentions regarding irregular migration.

The campaign had varying effects on knowledge and perceptions towards irregular migration depending on the country and the particular population group. No effects were observed on the intention to migrate irregularly and the attitude towards irregular migration.

Key issues which arose during implementation were that (1) few sampled individuals in the study participated in the MaM-2 activities; (2) the type, scope and intensity of activities varied across locations within and across countries; and (3) overall levels of migration intentions before the project were much lower compared to previous years. As such, the report provides practical lessons for projects aiming to apply robust scientific methods to real large-scale project settings. This multi-country study shows the commitment of IOM to continuously learn from implementation using robust methods and feed this information into programming.

**Keywords:** cluster randomized controlled trial, irregular migration, information campaign, awareness-raising campaign, peer-to-peer intervention







BACKGROUND OF THE STUDY  
AND CONTEXT ANALYSIS



## 1.1. Introduction

Awareness-raising and information campaigns are common interventions in the development sector. The migration sector is no exception. Unfortunately, these types of interventions are rarely rigorously evaluated in the field of migration. The evaluations, when they are conducted, are not rigorous enough to provide evidence of what works and what does not, where, and why (Tjaden et al., 2018). Though, donors engage in a lot of initiatives and fundraising in these types of interventions. The need for more data and evidence related to the real effects of awareness-raising and information campaigns in the field of migration is important.

To try to fill this gap and respond to the need, IOM initiated rigorous impact evaluations of intervention campaigns, starting with small-scale awareness-raising campaigns on the risks associated with irregular migration in 2019 in Dakar in Senegal (Dunsch et al., 2019; Tjaden and Dunsch, 2021) and in Northern Guinea (Tjaden and Gninafon, 2022).

The study conducted in Dakar was the first ever randomized controlled trial at IOM – and one of the rare rigorous impact evaluations in the field of migration in general, and information campaigns on irregular migration in particular. This was done in the framework of a project entitled Migrants as Messengers Phase 1, covering three countries in West Africa.<sup>1</sup> The takeaways of this evaluation were that, among others (Tjaden, 2020):

- (a) Many potential migrants lack key information and voice a need to get better access to information.
- (b) Peers as key messengers in information interventions can be effective.
- (c) Targeting relevant subpopulations for whom migration-related information is relevant is key, but it is operationally difficult.
- (d) Empowering returnees is important.
- (e) Follow-up actions can sustain effects of campaigns over time.
- (f) Evaluations should not be an afterthought but integrated with project implementation from the start.

Leveraging the results of this impact evaluation, a second phase of the Migrants as Messengers project was developed, covering four more countries in West Africa and including a larger-scale impact evaluation in a more real-life setting. In previous studies, the evaluation team had extensive influence on how the project was implemented to facilitate measurement. This is usually not the case in real-life operational settings. To assess whether the promising effects in the pilot studies could be scaled to more countries and to real operational settings, Migrants as Messengers Phase 2 initiated the largest ever scientific evaluation of an IOM project using a cluster randomized controlled trial in four countries. This report describes the methodology and the results of these evaluations.

## 1.2. Regional migration context

Mobility is an important feature in West and Central Africa (WCA). The region is a hub of mobility, and it experiences strong intraregional migration because of its position and exchanges with other regions. Regional migrations are triggered by many factors, including socioeconomic reasons, seasonal variability, livelihood-related concerns, conflict and climate change.

Intraregional migration is important in WCA. An estimated 7.6 million international migrants resided in the Western Africa subregion as of midyear 2020 (DESA, 2020). Most migrants from Western Africa are seeking employment and better economic opportunities.

Economic reasons such as “finding work”, “poverty” and “better business prospects” are the most important reasons for considering emigration in Western African countries.<sup>2</sup> In addition, the pursuit of an education, joining family members abroad, and “adventure” are other common reasons to consider migrating.

Labour is another reason for migration in the subregion. The majority of labour migrants work in the informal sector. Around 3.7 million migrant workers were estimated to live in the Economic Community of West African States in 2017, including 1.6 million women, and young migrants (15–35 years old) made up 46 per cent of all migrant workers.

<sup>1</sup> More details are found in the sections below.

<sup>2</sup> More information is available on the Migration Data Portal's page on [migration data in Western Africa](#) (accessed 17 March 2023).



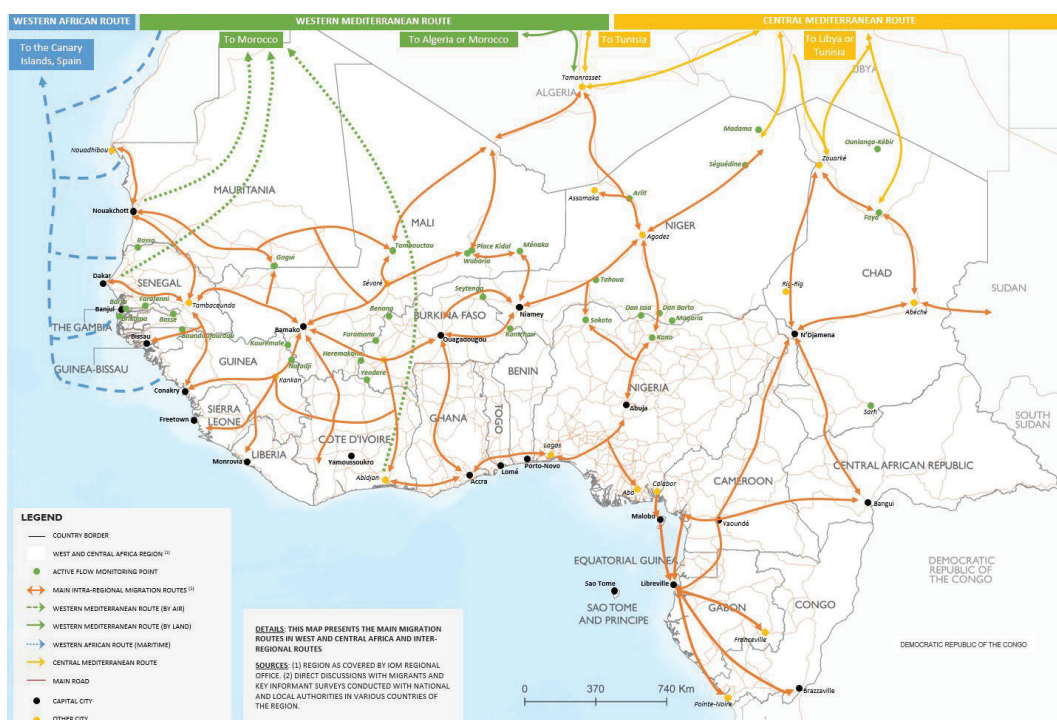
Forced displacement is also a reason for migrating. It is due to crisis in the Central Sahel region and the Lake Chad Basin. The crisis in Central Sahel has resulted in 331,206 internally displaced persons (IDPs) in Mali and 138,229 IDPs in the Niger (IOM, 2021a); and in the Lake Chad Basin, more than 256,000 refugees were displaced primarily in Cameroon and the Niger (ibid.).

While intraregional migration is important in WCA, some young people are making the journey to European countries in the hope of finding a better life for themselves, and their families back home.

The number of migrants crossing to Europe via the Central Mediterranean route and the Western Mediterranean route declined between 2017 and 2019, and remaining arrivals from Western Africa shifted heavily from Italy to Spain starting in 2018 (Fargues et al., 2020). Arrivals in Europe continued to decrease on the Western Mediterranean route during the first half of 2020 but increased in Italy and Malta (ibid.). The number of migrants crossing from Western Africa to Spain's Canary Islands increased sharply in 2020, with 16,760 newly arrived between January and November 2020, a more than 1,000 per cent increase compared to the same period in 2019.<sup>9</sup>

Since 2014, an estimated 11,598 migrants died or went missing in Africa,<sup>3</sup> and between 2017 and 2021, more than 692,000 migrants on irregular migration pathways arrived in Europe (by land and sea) (IOM, 2021b). In 2021, the number of migrants who died or disappeared along the Central Mediterranean, Eastern Mediterranean, West African Atlantic and Western Mediterranean routes increased (3,224) compared to the year 2020 (2,326), probably because of the easing of movement restrictions previously set due to the COVID-19 pandemic. Figure 1 shows the common migration routes from West Africa.

Figure 1. Common migration routes from West Africa



Note: This map is for illustration purposes only. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the International Organization for Migration.

Source: IOM's Displacement Tracking Matrix (2022).

<sup>3</sup> More information on migration within Africa is available on the Missing Migrants Project's webpage (accessed 19 November 2022).

These recent years, COVID-19-related travel measures and bans have had important impacts on migrants and travellers worldwide. By mid-July 2020, IOM estimated that the pandemic had left nearly 3 million people stranded (likely an underestimate).<sup>4</sup> The pandemic, on the one hand, increased the socioeconomic vulnerability of those who depend on mobility for survival. Job losses have hit migrant workers, especially since in many countries, they often work in sectors negatively affected by the pandemic and where social safety nets are minimal, such as “industries that depend on movement of people (i.e., hospitality), or personal interaction (i.e., retail trade)” (Mazza et al., 2022). Travel restrictions have also thwarted many people’s ability to pursue migration as a tool to escape conflict, economic collapse, environmental disaster and other crises (Benton et al., 2021). On the other hand, the pandemic amplified relationships of dependence and exploitation. Restrictions on movement have increased the dependence of many migrants on intermediaries and facilitators, from employment agencies to smugglers, in part because it has been difficult to access reliable information about fast-changing migration routes. For instance, border closures and restrictions have pushed smugglers to use more dangerous routes and raise their prices, exposing migrants and refugees to an increased risk of exploitation and trafficking.

The main countries of origin of WCA migrants arriving in Europe between 2017 and 2021 were Guinea (15%), Côte d’Ivoire (14%), Nigeria (12%) and Mali (11%). These four nationalities accounted for 52 per cent of arrivals from the WCA region.

The high number of deaths at sea, along with the tragedies and abuse that migrants face in the desert and Libya, including detention, continue to alarm the international community. Policymakers in migrants’ countries of origin, transit and destination are faced with the ambitious task of designing and implementing sustainable measures to address root causes of irregular migration, such as job creation, and to raise awareness, especially among the young people, of the risks of migrating irregularly, particularly through the desert and the sea.

## 1.3. Study country profiles

### 1.3.1. The Gambia

Migration is an important phenomenon in the Gambia. Emigration is important for the Gambian economy, with 27 per cent (as percentage of GDP)<sup>5</sup> coming from personal remittances received in 2021. The total number of emigrants at midyear 2020 for the Gambia is 139,200.<sup>6</sup> The share of female migrants in the international migrant stock at midyear 2020 for the Gambia is 47.2 per cent.<sup>7</sup>

Despite being one of the smallest countries in West Africa, the Gambia represents an important share of irregular migration to Europe from the region. Between 2015 and 2020, at least 33,000 Gambians arrived in Europe irregularly (IOM, 2021c). Europe is the main international migration destination for many Gambians, who mostly emigrate irregularly – through the “backway”.

Although irregular migration to Europe remains one of the most popular migration options for Gambians, only a few information campaigns on irregular migration have been carried out at the national level over the last couple of years, either by local civil society organizations or the Gambia Immigration Department. Young people in the Gambia continue to remain ill-informed of the risks associated with irregular migration, and they often fall prey to unscrupulous smugglers.

Significant migration data gaps exist in the Gambia. Migration data has traditionally been collected inconsistently and seasonally. As a result, the full extent of migration remains uncertain, given the country’s highly porous borders.

<sup>4</sup> More information is available on the [Migration Policy Institute’s website](#).

<sup>5</sup> More information is available on the [Migration Data Portal](#) (accessed 15 July 2022).

<sup>6</sup> Ibid.

<sup>7</sup> More information is available on the Migration Data Portal’s page on the [share of female migrants in the international migrant stock at mid-year 2020 in the Gambia](#).



### 1.3.2. Guinea

The total number of emigrants at midyear 2020 for Guinea is 550,800. The share of female migrants in the international migrant stock at midyear 2020 for Guinea is 41.2 per cent<sup>8</sup> (according to data accessed on 18 July 2022). The same source mentioned that personal remittances received (as percentage of GDP) in 2021 in Guinea is 1.1 per cent.

According to the IOM regional mobility mapping in WCA in January 2022, the number of Guinean nationals arriving in Europe in 2021 through irregular migration reached 2,682.

There are several drivers of migration in Guinea – social, political and economic – including the sharp deterioration in the standard of living of the average Guinean, which has been worsened in recent years with two health crises: Ebola (2014, 2021) and the COVID-19 pandemic (2020–2022). The vulnerability situation and the strong social pressure in communities with the perceptions that Europe is seen as the land of opportunities drive young people to attempt irregular migration.

### 1.3.3. Nigeria

Nigeria is one of the countries with the largest numbers of emigrants (or diasporas, nationals living abroad) together with Burkina Faso and Mali in the region. The total number of emigrants at midyear 2020 for Nigeria is 1.7 million.<sup>9</sup> The same source stated that personal remittances received (as percentage of GDP) in 2021 for Nigeria is 4.3 per cent, and the total share of female migrants in the international migrant stock at midyear 2020 in Nigeria is 45.5 per cent.

In recent times, various escalations of the conflict have been noted, with the security situation remaining unpredictable and leading to limitations in fluid mobility within and to Nigeria. A total of 157,519 IDP households were identified in 2021.<sup>10</sup>

Moreover, thousands of young Nigerians migrate abroad due to limited awareness of risks associated with irregular migration or skewed perceptions about employment opportunities abroad and high unemployment rates at home. This makes them vulnerable to dangerous schemes orchestrated by transnational criminal networks operating in Nigeria, along the Mediterranean migration routes and in destination countries. Migrants along the Central Mediterranean route to Europe are most at risk due to porous borders, weakened government structures and the presence of non-State forces. The proportion of Nigerian females among victims of trafficking between 2002 and 2021 is 87.1 per cent.<sup>19</sup>

### 1.3.4. Senegal

The Senegalese diaspora is estimated to have a minimum of 550,000 and up to 2.5 million people by some estimates (Smith, 2020). According to the same source, the Senegalese population abroad is divided primarily between Western Europe and sub-Saharan Africa, with the rest in North America, North Africa, and the Middle East and very small numbers in Asia and South America. The share of female migrants in the international migrant stock at midyear 2020 in Senegal is 47 per cent.<sup>11</sup>

The Senegalese diaspora's main destination countries in Europe include France, Italy and Spain; in West Africa, mostly the Gambia, Mauritania and Côte d'Ivoire; in Central and Southern Africa, Gabon, the Congo and South Africa; in North Africa and the Middle East, Morocco; and in North America, the United States of America and Canada (Ndione, 2018). Personal remittances received (as percentage of GDP) in 2021 is 9.6 per cent.<sup>12</sup>

Migration from Senegal is highly complex and contextual. There is no simple answer as to why people choose to migrate. It is a combination of limited employment opportunities, societal and family pressures, and accepted social norms (Hernández-Carretero and Carling, 2012).

<sup>8</sup> This is according to the [Migration Data Portal](#) (accessed 15 July 2022).

<sup>9</sup> Ibid.

<sup>10</sup> More Information is available on the Displacement Tracking Matrix page on [Nigeria](#).

<sup>11</sup> More information is available on the Migration Data Portal's page on the [share of female migrants in the international migrant stock at mid-year 2020 in Senegal](#) (accessed 15 July 2022).

<sup>12</sup> Ibid.



From 2015 to 2018, Senegal was among the top African countries of origin for migrants arriving in Greece, Italy and Spain – after Nigeria, Somalia and South Africa (IOM, 2018; UNHCR, 2018). An estimated 50,000 Senegalese arrived in Greece, Italy and Spain in 2017, and approximately 10,000 arrivals were recorded in 2018. Migrants using irregular migration pathways in travelling from Senegal to European countries face risks and dangers, such as gender-based violence and human trafficking. The proportion of Senegalese females among victims of trafficking between 2002 and 2021 is 17.8 per cent.<sup>13</sup>

## 1.4. Gender, migration and human rights

Irregular migration poses challenges regarding gender and human rights for countries of destination as well as those of departure and transit. Understanding the context (in West Africa) of these cross-cutting topics is important to understand why they are of interest for the Migrants as Messengers project. This is what is overviewed in this subsection.

Migration experience is shaped by the migrant's sexual characteristics, gender identity and sexual orientation. Gender identity influences reasons for migrating, opportunities, risks and vulnerabilities. The roles, expectations, relationships and power dynamics associated with gender significantly affect all aspects of the migration process.

Being gender-aware when engaging in awareness-raising activities in the field of migration has proven to be both effective and necessary. The Migrants as Messengers Phase 1 project experience in Guinea, Nigeria and Senegal showed that female returnees can be more reticent to share their testimonies in public, one of the key features of the project, as these might often include events of sexual exploitation or forced prostitution. Even without sharing the details of their stories, females can be associated with rape and therefore stigmatized in their communities.

Even though females are a minority within the (irregular) migrant population in West Africa, they play a very important role in the decision of young people – both males and females – to migrate. Mothers, particularly, often are a driving force in terms of mobilization of resources for their children to travel. Moreover, their advice and opinions are often highly valued and respected, not only within the household, but also at the level of local community gatherings, as shown by comments of mixed attendees at women-led community events. At the same time, this audience appears to be much less informed of the risk of irregular migration than people with a desire to migrate themselves.

Evidence demonstrates that violations of migrants' human rights are so widespread that they are a defining feature of international migration today (IOM, 2001). Extensive hostility against, abuse of, and violence towards migrants and other non-nationals have become much more visible worldwide in recent years. Unauthorized migrants are often treated as a reserve of flexible labour, outside the protection of labour safety, health, minimum wage and other standards, and easily deportable.

<sup>13</sup> Ibid.









EVIDENCE GAP AND OBJECTIVE  
OF THE STUDY



## 2.1. Evidence gap

Based on the above context and country profiles, several information and awareness-raising campaigns have been initiated in West Africa. There is, however, limited evidence of the effectiveness of these campaigns in addressing or attenuating the risks associated with irregular migration (Tjaden et al., 2018), while the scope and diversity of the activities have dramatically increased, particularly with the sharp increase in irregular migration to Europe and the harms associated with it for people embarking on irregular migration journeys. Based on this, IOM started conducting experimental and quasi-experimental evaluations (Dunsch et al., 2019; Bia-Zafinikamia et al., 2020; Tjaden and Dunsch, 2021; Tjaden and Gninafon, 2022) to assess the effectiveness of its awareness-raising projects in Africa. The evaluations conducted so far identified several gaps to fill in terms of awareness-raising and information campaigns and their rigorous evaluation.

- (a) First, it is not clear whether changes in intention lead to changes in behaviour.
- (b) Second, it is also not clear how long the changes noted during information and awareness-raising campaigns last.
- (c) Third, it is not known whether it is more effective to focus messages on risks or on opportunities at home or other kinds of messages for these activities to be effective.
- (d) Fourth, the way that information campaigns affect subgroups of people in different settings (e.g. rural versus urban areas, male versus female or other cultural contexts) needs to be investigated.
- (e) Fifth, more investigation is needed to identify the most efficient channel for these campaigns, given the growing use of social media in West Africa.
- (f) The role of migrants' families and community members in the decision to undertake irregular migration journeys, and how exposing these surrounding members to information and awareness-raising campaigns may affect their influence on the migrants, needs to be further investigated.

This study aims at addressing a few of these issues.<sup>14</sup>

## 2.2. Objective of the study

Drawing on the previous existing gaps and in order to address some of the issues raised in the previous sections, IOM's Global Migration Data Analysis Centre undertook the current impact evaluation study to inform on the effectiveness of the innovative awareness-raising campaigns conducted under the Migrants as Messengers Phase 2 project.<sup>15</sup>

The main objective of the study is to assess the effect of peer-to-peer, community-engagement, awareness-raising activities about local opportunities and risks associated with irregular migration on the knowledge, perceptions, attitudes and intentions of young people potentially keen to undergo irregular migration journeys, in communities with high emigration rates and limited exposure to awareness-raising campaigns in West Africa.

The research questions, the methodology and all the other constitutive part of the research are detailed below. Before these elements, an overview of the project under which this research has been designed is provided in the next section.

<sup>14</sup> Not all (see Section 2.2 for more details).

<sup>15</sup> See Section 3 for the description of the project.





A large, stylized orange number '3' is positioned on the right side of the page. The background is a deep blue with a repeating geometric pattern of various shapes, including diamonds, triangles, and floral motifs, in lighter shades of blue.

THE MIGRANTS  
AS MESSENGERS PROJECT



## 3.1. Phase 1

The Migrants as Messengers Phase 1 project was implemented in Guinea, Nigeria and Senegal. It ran from November 2017 to March 2019 and developed a methodology for recording testimonies from return migrants through peer-to-peer video interviews, and a platform for collecting and disseminating these videos on social media. The project also included community engagement and an on-the-ground component. The production and broadcasting of videos was supported by local and international media partners. Phase 1 included a scientifically rigorous impact evaluation conducted to assess the impact of the Migrants as Messengers (MaM) campaign in Dakar, Senegal. This impact evaluation focused on a key pillar of the MaM campaign, namely town hall events, which screened video testimonies of migrant returnees, followed by interactive question-and-answer sessions with them.

## 3.2. Phase 2

### 3.2.1. *The goal*

The overall goal of Migrants as Messengers Phase 2 (MaM-2) is to empower young people to make informed migration-related decisions in West Africa. Specifically, this second phase<sup>16</sup> supports its primary audience (people with a desire to migrate, young adults between 17 and 25 years old, males and females) to make better-informed decisions, through the following:

- (a) Informing of
  - (i) The risks and realities of irregular migration along the Mediterranean routes,
  - (ii) The frameworks for regular migration,
  - (iii) Safe alternatives to irregular migration;
- (b) Informing the people who directly influence the decisions of people with a desire to migrate (family members and friends) of the risks and realities of irregular migration along the Mediterranean routes, as well as legal frameworks and safe alternatives, in an adaptive and effective manner;
- (c) Working with media and other social influencers to provide accurate information on irregular migration, legal frameworks and safe alternatives.

The key feature of the project is the peer-to-peer messaging that leverages the experiences of returnees.

### 3.2.2. *Content of the Migrants as Messengers Phase 2 project and the target audience*

MaM-2 was designed around five key pillars: capacity-building, community engagement, content production, media and digital engagement, and impact evaluation.

- (a) **Capacity-building.** MaM-2 recruited and trained voluntary return migrants to become “Volunteers”. Some of them were trained to become trainers themselves, for the purpose of training new Volunteers and other stakeholders (e.g. journalists, artists and civil society actors). Different types of trainings were developed in a participatory approach to empower the participants to collectively shape the campaign and its content throughout the project. Regular meetings and trainings allowed Volunteers to learn more about the project, the role of Volunteers, and peer support as well as how to be community mobilizers, content producers, storytellers, digital ambassadors and awareness-raising agents in their communities. These trainings were essential to equip the Volunteers with the knowledge and skills to lead the activities of the campaign – and to ensure that MaM is led by trained return migrants themselves.
- (b) **Community engagement.** As the second pillar of the MaM-2 project, community-engagement activities included, among others, community talks, town hall meetings, student outreach, caravans, artist collaborations, a global migration film festival, and partnerships with non-governmental organizations, community radios and civil society actors for organizing awareness-raising activities.

<sup>16</sup> More information is available on the [Migrants as Messengers'](#) website (accessed 20 November 2022).



- (c) **Content production.** This component is concerned with creation. Specific activities included, among others, individual interviews, training and equipment provided to Volunteers, and creation of various digital content in relation with the project.
- (d) **Media and digital engagement.** This is concerned with the dissemination of video testimonials, distributed through social media channels and collaboration with local influencers (e.g. bloggers and artists) – including identifying influencers and partnership strategies (in line with digital communication strategy development) and partnerships creation with media development actors to distribute MaM’s messages in different media outlets (e.g. radio, television, online media and magazines).
- (e) **Research.** The results achieved in the impact evaluation of Phase 1 encouraged the inclusion of a larger impact evaluation study in the second phase, still with the “mechanism experiment” but with far less control and further closeness to real-world implementation, with an attempt to have external validity. Beyond this impact evaluation, the project included other research activities.

Regarding the target audience, the project broke down the key audience into three categories:

- (a) The primary audience<sup>17</sup> are young people and people with a desire to migrate, aged between 17 and 25 years old, both males and females.
- (b) The secondary audience<sup>18</sup> included family members (mothers, in particular), friends and peers.
- (c) The tertiary audience<sup>19</sup> are the media, connected young people that are expected to be the leaders of tomorrow, and community and religious leaders.

This second phase of the project also featured, in an important manner, cross-cutting elements such as gender and mental health and psychosocial support.

### 3.3. Theory of change

The objective of MaM-2 is to empower the youth to make informed migration-related decisions in target countries in West Africa. While providing access to information is straightforward, facilitating the informed decisions of migrants requires assumptions about behaviour change.

The social and behaviour change communication approach relies on a range of theories of behaviour change, including rational choice theory, the theory of intended behaviour, social learning theory and social ecological models.

Rational choice theory proposes that individuals make a deliberate, conscious cost–benefit calculation, weighing the pros and cons of different behavioural options (Massey et al., 1993; Piguet, 2013). Information and awareness-raising campaigns, from this perspective, attempt to correct missing or biased information with a view to allowing for balanced decisions. The shortcomings of this theory are that it assumes that migrants are individual, rational decision makers with complete information about the costs, benefits and impact of their actions.

The theory of planned behaviour (Ajzen, 1991) also assumes that humans are rational and make systematic use of available information. However, the theory departs from the benefit maximization model by incorporating the role of subjective norms and perceived behavioural control into the decision-making model. Applied to migration, the theory suggests that social norms and social pressures contribute to personal intentions. Furthermore, the theory suggests that when potential migrants have already formed strong intentions to migrate, new information regarding the risks may be ineffective in changing behaviour.

More broadly, social ecological models emphasize multiple levels of influence (such as individual, interpersonal, organizational, community and public policy) and the idea that behaviours both shape and are shaped by the social environment.

<sup>17</sup> The group of people to be addressed directly with specific messages so that they will change their attitudes and behaviours.

<sup>18</sup> The formal and informal social networks and social support systems that can play a role in influencing the primary audience’s behaviours.

<sup>19</sup> Those whose actions indirectly help or hinder the behaviours of others. The tertiary audience’s actions reflect the broader social and cultural factors that create an enabling environment to sustain the desired behaviour change.





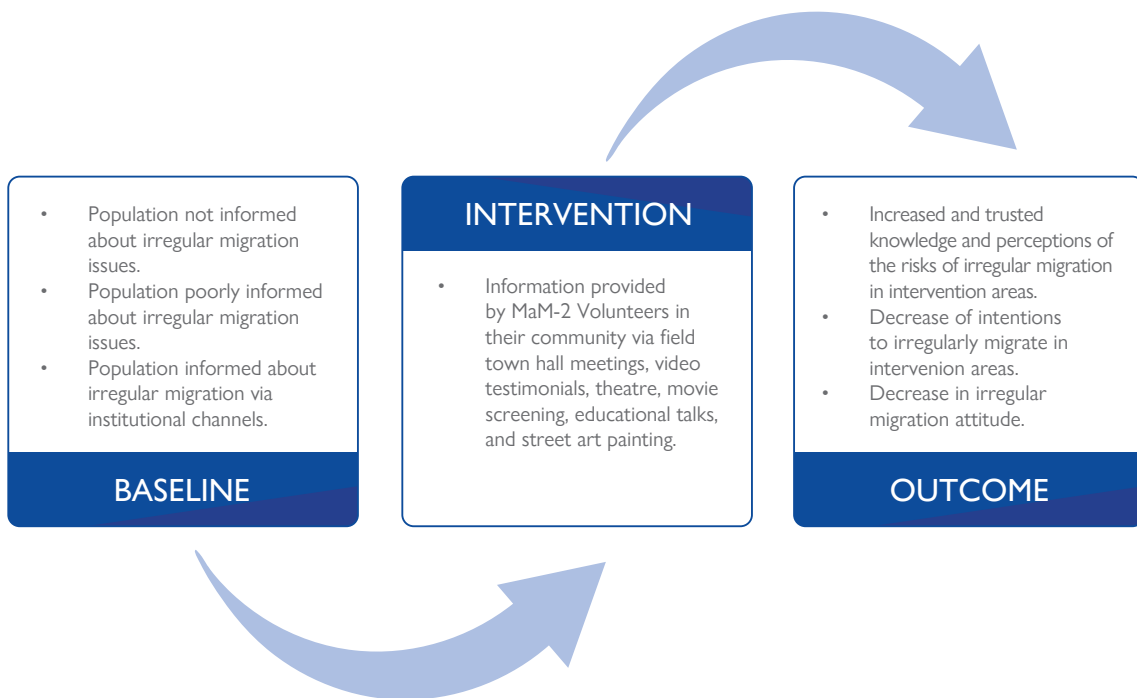
The principles of social ecological models are consistent with social cognitive theory concepts, which suggest that creating an environment conducive to change is important to making it easier to adopt healthy behaviours.

Social learning theory and social ecological models highlight the importance of the context for individual behaviour. In other words, the key models emphasize that migrants' decisions do not happen in a vacuum; they are most likely strongly influenced by not only individual preferences but also the community and broader social and cultural norms in the community.

Translated into the MaM-2 campaign, the brief review of general behavioural change theories suggests that the migration decisions of potential migrants depend on a myriad of factors that operate at different levels: the individual migrant, the immediate social network and the community at large. It is assumed that social network and community influences will eventually manifest themselves in the decision-making process of the individual. As a result, the study focused on the individual potential migrant as the main unit of analysis and inference. In addition, interviews have been conducted with the household head to gather context information and the level of social network influence. The influence of community norms and information diffusion in the community have been assessed based on self-reported perceptions of the target person.

The MaM-2 project relies on information to address missing, incomplete or biased information and perceptions regarding (irregular) migration to Europe. The information is communicated by peers that have experienced irregular migration first-hand. The intervention combined video material, public gatherings, theatre performance and face-to-face discussions among peers in all the countries. The information provided is intended to increase risks awareness, increase knowledge about irregular and regular migration, and improve understanding of legal alternatives and local opportunities. Figure 2 displays a synthesis of the theory of change.

Figure 2. Theory of change



Source: Designed by the authors.





# 4

## GUIDING QUESTIONS AND HYPOTHESES OF THE STUDY



Considering the debate in the literature, the first question is whether information campaigns that use peer-to-peer messaging can affect knowledge, intentions, attitudes, perceptions and possibly even behaviours of migrants traversing irregular migration pathways in targeted communities. In addition, there are several questions based on gaps in the available evidence. The study attempted to provide insights into these questions wherever possible.

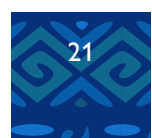
The first question of interest is as follows: **Are awareness-raising campaigns more effective in rural than in urban areas? If so, do we know how and why they are?** The study in Phase 1 was based on Migrants as Messengers film events organized in Dakar, Senegal. The events took place in an urban setting, which has implications for the population of potential migrants' presence, access to technology, and Internet and cell phone connectivity, as well as for general living conditions. These factors may drive migration-related decision-making and are therefore important for information and awareness-raising campaigns to consider. In some countries, many migrants first move from rural to urban areas before leaving the country. Rural populations have contacts abroad and receive information and remittances from family members and friends that have migrated in the past. This could suggest that rural populations are not necessarily less informed about migration than urban populations. In terms of pressure to migrate, it is also not obvious that the living situation in urban areas is better than in rural areas, given that potential migrants in cities may be less able to rely on the support of their families and have to face increased living costs.

*Hypothesis 1. Information campaigns are more effective in rural than in urban areas.*

**With the risks associated with irregular migration and/or opportunities at home, what kind of message should we focus on?** This was the second question of interest. One of the questions left open by the impact evaluation of Phase 1 is whether the message should focus on local opportunities, risks associated with irregular migration, or both. There is no evidence of what works best. However, other studies suggest that credibility of awareness-raising activities is enhanced when the messages shared present the advantages and disadvantages of migration, as well as the opportunities of regular migration and the specific risks of irregular migration, in addition to leveraging the stories of returnees (ILO, 2018). The current study assessed whether the effects of awareness-raising intervention are improved when adding information about local opportunities to the narrative as well as the risks associated with irregular migration.

*Hypothesis 2. The effect of the campaign is not necessarily better when information about local opportunities is combined with the risks associated with irregular migration journeys.*

Some research (Tjaden et al., 2018; Tjaden and Dunsch, 2021) suggest that emphasizing local opportunities while raising awareness on risks associated with irregular migration could increase the effects of campaigns. To our knowledge, this assumption has not been tested rigorously yet. We will test it through this study.







# 5

## DESCRIPTION OF THE INTERVENTIONS





The *theory of change* was based on Volunteers' direct emotional testimony during the community-engagement activities of Migrants as Messengers Phase 2. Below is a description of the interventions in each country. It is worth noting that in all the interventions, there were some common features:

- (a) Little or no IOM branding;
- (b) Activities were led by Volunteers;
- (c) Volunteers were trained by the project team to conduct engaging community activities;
- (d) Messaging and content were developed and/or co-developed by Volunteers;
- (e) Testing of all the intervention events and materials before implementation;
- (f) In each enumeration area in the treatment group, the list of people surveyed at baseline were shared with the implementation team to develop strategies to get them to participate in the activities.

The specific intervention activities in each country are provided below.

## 5.1. In the Gambia

The intervention in the Gambia consisted of activities that took place in the morning (between 10 a.m. and 1 p.m.) and in the evening (finishing around 10 p.m.). The intervention activities took place in each of the 29 intervention areas,<sup>20</sup> from February to March 2022. The intervention consisted of the following:

- (a) Morning activities – small-scale *Bantaba*.<sup>21</sup> Community talk in which Migrants as Messengers (MaM) Volunteers led discussions and shared their testimonies with three different groups of participants: women, elders and young people. These three talks were held at the same time.
- (b) Evening activities – large-scale *Bantaba*, executed in the following order:
  - (i) Musical show to mobilize community members to attend the activity;
  - (ii) Sharing of Volunteer testimonies and discussions with audience members based on returning migrants' testimonies;
  - (iii) Performance by 10 traditional communicators (oral historians who use music and art to tell stories);
  - (iv) Theatre performance by MaM Volunteers;
  - (v) Second round of discussions with the audience members;
  - (vi) Screening of a movie on irregular migration;
  - (vii) Final round of discussions with audience members, facilitated by Volunteers.

Figure 3. A MaM-2 Volunteer talking to people in the Gambia



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<sup>20</sup> One enumeration area was not covered in the Gambia.

<sup>21</sup> This means "public gathering".

## 5.2. In Guinea

The intervention in Guinea took place between October and November 2021, and it consisted of two days of community-engagement activities in each of the 30 intervention areas where the activities were conducted.

- (a) Day 1 activities are comprised of the following:
  - (i) During the day: A series of community-engagement activities were implemented – including a community football match and street art. Street art was a participatory activity led by Volunteers and was designed to strengthen community engagement and social cohesion through creative workshops in public spaces. These activities served as a way to mobilize community members for the activities that followed, as well as begin to engage community members in informal discussions on the risks of and safe alternatives to irregular migration.
  - (ii) In the evening:
    - a. Musical show starting after *Isha* (Muslims' night prayer), with a well-known radio presenter performing as disc jockey. This step served to mobilize people to attend the activities.
    - b. Theatre performance with both returnees and external actors.
    - c. Community discussions. After the performance, the disc jockey took the floor and interacted with people about the performance and predetermined irregular migration topics. During this, Volunteers shared their testimonies, and returning migrants from the audience were invited to share theirs as well.
- (b) Day 2: Community conversations. During this activity, two Volunteers led a community conversation with 12 community members, where they shared their migration stories as well as discussed the risks of and safe alternatives to irregular migration. The testimony shared was the same, but the discussion arising from it was dependent on the participants' questions and comments. This may then be different from one place to another. In each of the 30 intervention locations, two groups of community members were composed: one group of females and a second group of males.

Figure 4. Night event in Guinea



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### 5.3. In Nigeria

The intervention took place from November 2021 to March 2022, with most of the enumeration areas covered in February 2022. The intervention was a town hall event that took place during the day (usually between 11 a.m. and 1 p.m.) and included the following components:

- (a) The event was opened by a MaM Volunteer, and this was followed by a community leader giving a speech on irregular migration issues in the community where the activity was organized.
- (b) Two testimonials were shared by MaM Volunteers.
- (c) The returning migrants' testimonies were followed by a theatre performance called *Faces*. The actors were both Volunteers (returning migrants) and external actors. Two teams were involved in each performance.
- (d) After the theatre performance, a Volunteer facilitated a discussion with the audience about the testimonials shared and the presentation.

Figure 5. Town hall advertisement in Nigeria



## 5.4. In Senegal

In Senegal, the intervention took place from end of June to July 2021. The intervention activities were composed of the following:

- (a) Community meal. Volunteers invited female village leaders<sup>22</sup> to gather to cook lunch for the whole community. This served as a mobilization technique for the ensuing activities throughout the day.
- (b) Door-to-door outreach. Volunteers conducted door-to-door campaigning in the community to inform the people about the activities that were going to take place that evening.

Evening performance:

- (a) Began with a musical show to help gather people from the enumeration area. This usually started in the early evening.
- (b) Volunteers shared testimonies from their migration journeys.
- (c) Theatre performance featuring MaM Volunteers and external actors.
- (d) Discussions facilitated by the MaM Volunteers after the theatre performance.
- (e) After the discussions, a 15-minute movie on migration was screened to the crowd.
- (f) The activity ended with discussions around the movie screening, facilitated by Volunteers.

Figure 6. MaM-2 Volunteers discussing with night-event attendees in Senegal



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<sup>22</sup> These are females who hold some leadership roles in the village, either because of their traditional power or any other power of influence in the village.



# 6

## METHODOLOGY AND DATA COLLECTION



## 6.1. Measuring the impact of awareness-raising interventions on migration

The study employs a cluster randomized controlled trial approach<sup>23</sup> to measure the possible effects of Migrants as Messengers Phase 2 (MaM-2) activities on the communities where such activities were implemented. Data collection was conducted in one region per country (the Gambia, Guinea, Nigeria and Senegal).

Randomized controlled trials are the “gold standard” in measuring development interventions’ effects and provide more reliable results compared to non-experimental alternative approaches. The main idea of a cluster randomized controlled trial is that the locations where the interventions (MaM-2 activities) will take place are randomly selected from a list. Data are collected before and after project implementation to allow for a comparison between individuals living in communities where activities took place (treatment) and those living in communities without any activities (control). This set-up increases confidence in the results because, in theory, individuals in treatment and control communities are statistically identical except for potential exposure to the intervention.

The main features of this study (in comparison to previous studies conducted by IOM) are as follows:

- (a) The awareness-raising campaign is led by returnees.
- (b) The design is closer to real-life situations.
- (c) Various interventions are tested in different contexts in the same study.
- (d) It offers the possibility to test the effects on the same large set of indicators in different contexts.

## 6.2. Description of outcomes

The following outcomes were used to measure the key effects of MaM-2 information-campaign activities on the intended audiences:

- (a) Knowledge about (irregular) migration and local opportunities, hereinafter referred to as Knowledge;
- (b) Perceptions of irregular migration and local opportunities, hereinafter referred to as Perception;
- (c) Intention to migrate irregularly, hereinafter referred to as Intention;
- (d) Attitude towards irregular migration and local opportunities, hereinafter referred to as Attitude.

The detailed list of indicators used for these outcomes is provided in the table below. Some of these indicators are a combination of several variables, and others are single indicators taken directly from a question from the questionnaire. The details of the transformation for synthetic indicators are provided in Annex 4.

<sup>23</sup> See Annex 1 for more details.



Table 1. Description of outcomes

Outcome	Indicator	Related question in the questionnaire
Attitude	Contacted a facilitator.	What kinds of preparations have you made? <sup>24</sup>
Intention	Intends to migrate irregularly.	If you cannot get a visa to migrate, will you still try to do it otherwise?
Knowledge	Knows countries to transit through during irregular migration from one's country.	What are the transit countries to get you to Spain or Italy?
Knowledge	Knows where to find information on local opportunities in one's country or in neighbouring countries.	Where can you find information about local job opportunities?
Knowledge	Index of acceptable knowledge of irregular migration issues.	This indicator is composed of several questions combined to get a single indicator of knowledge of irregular migration issues. <sup>25</sup>
Perception	Thinks that one can send back remittances in less than one year after entering Europe, for a person who entered without legal documents.	How long (in number of months) do you think it takes for someone from your community who has migrated to Europe to start sending money home, counting from the time they left the country?
Perception	Perceives it easy to find information about local opportunities in one's country.	How easy or difficult is it in your country to find information about local opportunities?
Perception	Thinks that physical injury or illness could occur to oneself personally if one attempted to migrate to Europe by sea/land.	How likely do you think physical injury or illness could occur to you personally if you attempted to migrate to Europe by sea/land?
Perception	Thinks that death could occur to oneself personally if one attempted to migrate to Europe by sea/land.	How likely do you think death could occur to you personally if you attempted to migrate to Europe by sea/land?
Perception	Thinks that gender-based violence could occur to oneself personally if one attempted to migrate to Europe by sea/land.	How likely do you think gender-based violence could occur to you personally if you attempted to migrate to Europe by sea/land?
Perception	Thinks that deprivation of liberty could occur to oneself personally if one attempted to migrate to Europe by sea/land.	How likely do you think deprivation of liberty could occur to you personally if you attempted to migrate to Europe by sea/land?
Perception	Thinks that abandonment along the journey could occur to oneself personally if one attempted to migrate to Europe by sea/land.	How likely do you think abandonment along the journey could occur to you personally if you attempted to migrate to Europe by sea/land?
Perception	Thinks that imprisonment could occur to oneself personally if one attempted to migrate to Europe by sea/land.	How likely do you think imprisonment could occur to you personally if you attempted to migrate to Europe by sea/land?
Perception	Thinks that forced labour could occur to oneself personally if one attempted to migrate to Europe by sea/land.	How likely do you think forced labour could occur to you personally if you attempted to migrate to Europe by sea/land?
Perception	Level of perception of risks.	This indicator is a combination of several questions computed in a specific way in order to have a single indicator of perception of risks associated with irregular migration. <sup>36</sup>

<sup>24</sup> This question came after the following related questions: Are you considering leaving the country to live in another country? Have you made concrete plans to move to this country within the next year?

<sup>25</sup> See Annex 4 for details of the questions that were used and how they were combined.



## 6.3. Data collection and selection of the intervention areas

### 6.3.1. Data collection

In each country, the data-collection process included the following steps:

**Development of a pre-analysis plan and pre-registration.** This consisted of a thorough literature review, along with various scenarios for the approach to evaluate the causal effects of the possible interventions in the framework of MaM-2. Once the approach was identified, the sampling, tasks and possible challenges were discussed, and ways to address the challenges were identified. A literature review of the questionnaire development and the analysis were explored during this step. All this led to a pre-analysis plan that was registered in the Registry for International Development Impact Evaluations (Tjaden and Ndashimye, 2021).

**Ethical clearance request.** In each country, an attempt was made to get the study ethically cleared. However, the study ended up getting ethical clearance from the following:

- (a) The National Health Research Ethics Committee of Nigeria on 29 May 2021;
- (b) The Comité National d’Ethique pour la Recherche en Santé in Sénégal on 23 February 2021.

In the Gambia and Guinea, no ethical clearance was needed in order to conduct this specific study.<sup>26</sup>

**Sampling frame acquisition.** In all the countries, the office in charge of statistics<sup>27</sup> provided us first with a representative sample of enumeration areas randomly drawn from the agreed-upon study area (see below for details), then provided the printed maps of the randomly selected enumeration areas. It is worth mentioning that in order to account for an expected attrition rate of 30 per cent, only enumeration areas with more than 100 people were included in the sampling frame. This step lasts differently in each country.

**A simplified listing of households and their composition in the study area** (in the enumeration areas included in the study). Given that the sampling frames received from the statistical offices were partially outdated or had possibly inaccurate information, a simple listing was conducted before the baseline data collection. The aim was to count the actual number of households in the randomly selected enumeration areas and gather few basic information on the households (number of individuals in the households, number of males and females in the age range of 17 to 30, the Global Positioning System (GPS) coordinates of the households, etc.). The period for this step is provided in Table 2 below.

**Recruitment of survey firms.** For the baseline and end-line data collections, survey firms were recruited in Guinea and Nigeria. The data-collection process was led directly by the IOM staff in Senegal for the baseline and end line. The data-collection process was led directly by the IOM staff in the Gambia for the baseline. However, based on a recommendation from the IOM Office in the Gambia, a survey firm was recruited to conduct the end-line survey in this country.

**Recruitment of enumerators, back-checkers and supervisors.** In each country, a minimum of 40 enumerators, three back-checkers and five supervisors were recruited for the baseline and later for the end line. Depending on the entity who led the data collection (see previous point), the recruitment was under that entity’s responsibility. In all the countries, the field team was composed of, at least, the following:

- (a) A total of 40 enumerators;
- (b) Five supervisors;
- (c) Three back-checkers;
- (d) One data manager;
- (e) One field coordinator;
- (f) One senior research assistant.

<sup>26</sup> We were notified by the statistical offices in these two countries that an ethical clearance was not needed for this kind of study.

<sup>27</sup> This refers to the Gambia Bureau of Statistics in the Gambia, the Institut national de la statistique de Guinée in Guinea, the Agence National de la Statistique et de la Démographie in Senegal and the National Population Commission in Nigeria.

**A participative questionnaire drafting.** The questionnaire was first drafted by the research team, then went into a feedback process that included the following:

- (a) The MaM-2 implementation team at the Regional Office of IOM in Dakar;
- (b) The MaM-2 implementation teams in country offices concerned with the study;
- (c) The returning migrants engaged as Volunteers;
- (d) A group of leading experts in the topic taken from the academic review board of the study.<sup>28</sup>

The questionnaire obtained from this process was first tested in Senegal, then finalized and adapted for the other countries to account for their specific contexts. The adaptation concerned mainly the options specific to the countries, for questions with several possible choices<sup>29</sup> as well as other minor changes (for instance, the administrative appellations and subdivisions).

**Coding the final questionnaire in a computer-assisted personal interview format.** The final agreed-upon questionnaire was coded in KoboToolbox first and tested in Senegal. It has been adapted in the Gambia and Guinea and tested as well. The survey firm in Nigeria programmed it in SurveyCTO.<sup>30</sup> The codes adaptation included translations in addition to the previous adaptations.

**Coding a high-frequency checks programme in Stata and R to reinforce data quality assurance.** A high-frequency checks programme was coded for each country. It was used as a layer of data quality check. It included verification of recurrent responses, accuracy of the survey area, outliers and other predictable data issues.

The table below provides a summary of the timeline of data collection in each country.

**Table 2. Data collection and intervention timeline**

Data collection and intervention steps	The Gambia	Guinea	Nigeria	Senegal
BASELINE				
Participative questionnaire development	August 2020–January 2021			
Programming the questionnaire	April–June 2021	April–June 2021	May–June 2021	February–April 2021
Recruitment of survey firms (baseline)	Not applicable <sup>31</sup>	March–April 2021	March–April 2021	Not applicable <sup>32</sup>
Recruitment of enumerators	May–June 2021	May–June 2021	May–June 2021	March–May 2021
Training of enumerators	June 2021	June 2021	June 2021	March and May 2021 <sup>33</sup>
Simplified listing	June 2021	June 2021	June 2021	March 2021 <sup>34</sup>
Survey piloting	June 2021	June 2021	June 2021	March 2021 <sup>35</sup>
Data collection	July–August 2021	July–August 2021	June–July 2021	May–June 2021

<sup>28</sup> Details are found in Annex 5.

<sup>29</sup> These are “select one” and “select multiple” questions.

<sup>30</sup> **KoboToolbox** and **SurveyCTO** are mobile data-collection platforms. They are all based on **ODK** (Open Data Kit). The first one is developed by a fully independent non-profit organization, Kobo Inc., and is open source, and the latter is developed by the World Bank.

<sup>31</sup> The data collection at baseline was conducted by the research team based in Dakar, with the huge support of the country office project team.

<sup>32</sup> The data collection at baseline was conducted by the research team based in Dakar.

<sup>33</sup> Due to the time it took to have the enumerator legally onboard due to internal processes, a refresher training was conducted in May 2021.

<sup>34</sup> In Senegal, the simplified listing was considered as part of the selection process.

<sup>35</sup> In Senegal, the survey piloting was considered as part of the selection process.

Data collection and intervention steps	The Gambia	Guinea	Nigeria	Senegal
INTERVENTION				
Core activities	February–March 2022	October–November 2021	January–February 2022	June–July 2021
Follow-up activities	March 2022	February 2022	March 2022	November 2021
END LINE				
Recruitment of survey firms in the Gambia, Guinea and Nigeria	January–March 2022	January–March 2022	January–March 2022	N/A
Adaptation of the questionnaire for end line	March 2022	March 2022	April 2022	October–November 2022
Recruitment of enumerators for end line	March 2022	March 2022	April 2022	November 2022
Training of the enumerators for end line	April 2022	March 2022	April 2022	November 2022
Final data collection	April–May 2022	April–May 2022	April–May 2022	December 2021–January 2022

### 6.3.2. Selection of the intervention areas

The selection of the intervention area in each of the four countries was a multistage participatory process.

The first stage consisted in choosing the country to be included in the study among the seven MaM-2 countries. This first choice relied on recent migration patterns at the time of making the decision.

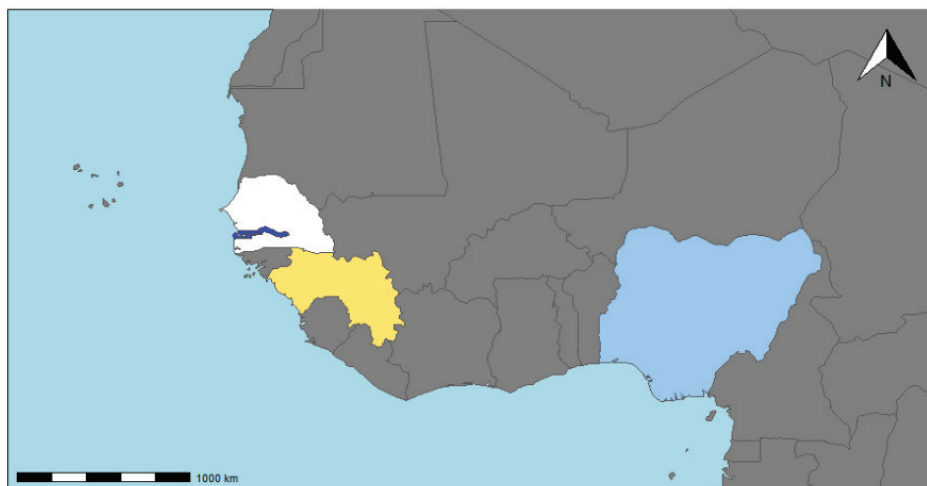
**Table 3. Recent migration patterns in Migrants as Messengers Phase 2 countries in 2019<sup>36</sup>**

Country	December 2019 asylum applications (Eurostat)	2016 sea arrivals in Italy (IOM)	2019 international emigrant stock (DESA)
Côte d'Ivoire	716	12 400	1 100 000
The Gambia	307	12 000	119 000
Guinea	968	13 300	531 000
Liberia	20	Not available	219 000
Nigeria	1 527	37 500	1 400 000
Senegal	456	10 300	643 000
Sierra Leone	120	Not available	187 000

Table 3 served as guidance in choosing the countries among those covered by the project – the ones that will host the impact evaluation studies. Other reasons like the logistics available in the IOM country office and internal coordination led to selecting the Gambia, Guinea, Nigeria and Senegal to be part of the study.

<sup>36</sup> This was when the project was starting.

Figure 7. The countries covered by the impact evaluation



Note: This map is for illustration purposes only. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the International Organization for Migration.

Source: Map is produced by the authors.

In the second stage, there was a need to select the administrative area to cover for the study, given that the resources available could not cover the whole country. For that purpose, two criteria were used to identify the administrative areas to be included in each country:

- (a) High migration<sup>37</sup> rate in the area;
- (b) Low exposure to migration-related awareness-raising activities.

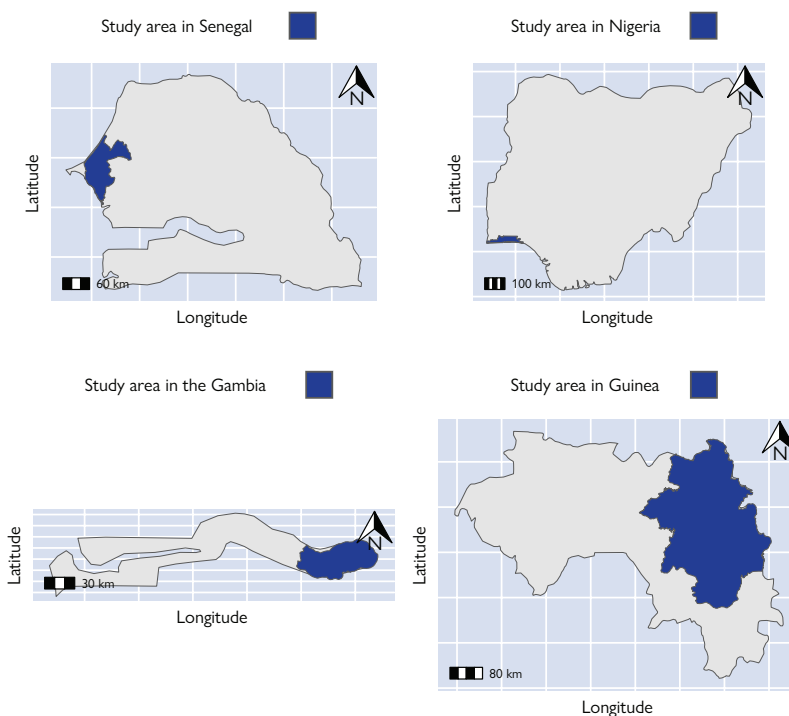
This information was derived from public reports and IOM country offices' knowledge of the context of each country.

Leveraging these criteria and in close collaboration with IOM country offices in the Gambia, Guinea, Nigeria and Senegal, the following administrative areas were selected:

- (a) The Gambia – the Upper River Region.
- (b) Guinea – the region of Nzérékoré.
- (c) Nigeria – the State of Lagos.
- (d) Senegal – the region of Thiès.

<sup>37</sup> Not only irregular migration.

Figure 8. Study areas in each country



Note: The maps are for illustration purposes only. The boundaries and names shown and the designations used on these maps do not imply official endorsement or acceptance by the International Organization for Migration.

Source: Maps are produced by the authors.

Due to the size of the State of Lagos, a substage using the same criteria led to focusing the study on two local government areas: Alimosho and Ojo.

In February 2021, an Ebola outbreak in the region of Nzérékoré in Guinea obliged the research team, in coordination with the country office of IOM in Guinea, to change their choice and select the region of Kankan using the same criteria.

### 6.3.3. Sample size and sample selection in the areas included in the study

After the study area was selected, a random representative sample of enumeration areas was chosen in each selected area in the four countries. This random sample was drawn among enumeration areas with 100 or more households. Due to the lack of specific statistics on the indicators of the outcomes of interest, the random sample was drawn based on “the proportion of young people aged 17 to 25 in [enumeration areas]”, while one relevant indicator to use could have been “the proportion of irregular migrants aged 17 to 30” in the area covered by the study. The sampling was also stratified by residential area (urban versus rural), and the classic parameters of precision and significance level were used.

In each enumeration area included in the study (that is, in the sample randomly selected), a listing has been conducted, with the main objective of counting the actual number of households with at least one individual aged 17 to 30. This was the household inclusion criterion. Beyond this main goal, the opportunity was taken in this exercise to gather a few information related to contacts and GPS coordinates, in order to facilitate future visits for baseline data collection.

Once the actual number of households with at least one individual aged 17 to 30 was known, the share of each enumeration area was calculated.<sup>38</sup> The number of households from each enumeration area to be surveyed in the study was then calculated using the desired sample size multiplied by the share of the enumeration area. In the last step, the selection of households to visit was done randomly.

<sup>38</sup> This was achieved by dividing the number of households in the enumeration area by the total number of households counted in total.

The details of the sample-size calculation for this study (based on van Breukelen et al., 2008; Candel et al., 2010; and Rutterford et al., 2015) are provided in Annex 2. However, for all the countries, an oversample of 3,000 households was set. For each household visited, there was a maximum of three people interviewed:

- (a) The household head or representative;
- (b) One female aged 17 to 30 randomly selected (using a data-collection application programme) if there is at least one female in the household;
- (c) One male aged 17 to 30 randomly selected (using a data-collection application programme) if there is at least one male in the household.

The rule of thumb was to conduct all the interviews in person at baseline and end line. However, in some very specific circumstances, where the respondent is willing to respond and after three failed attempts to meet in person with the enumerator – and all that verified by the supervisor – the interview could be conducted on the phone. The final decision to do so was taken by the field coordinator.

Overall, the “unit non-response” rate (i.e. households that were sampled but refused to participate) was below 5 per cent in all countries. Two specifics to mention are as follows:

- (a) With the fact that the randomly selected enumeration areas in Senegal did not allow reaching the 3,000 households target, the data collection ended up being a census of the selected enumeration areas.
- (b) In Nigeria, due to the small sizes of the enumeration areas, an additional number of enumeration areas were added in order to account for this specific situation, finally resulting in 93 enumeration areas.

The above-described process led to a representative sample of households of the areas covered.

Eventually, to ensure a technically strong study, the research team requested and obtained technical support from leading experts in the field of migration and for impact evaluations to be part of the academic review board. The key milestones of the research include the design, the approach, the questionnaire development and obtaining the endorsement of the review board.



# 7

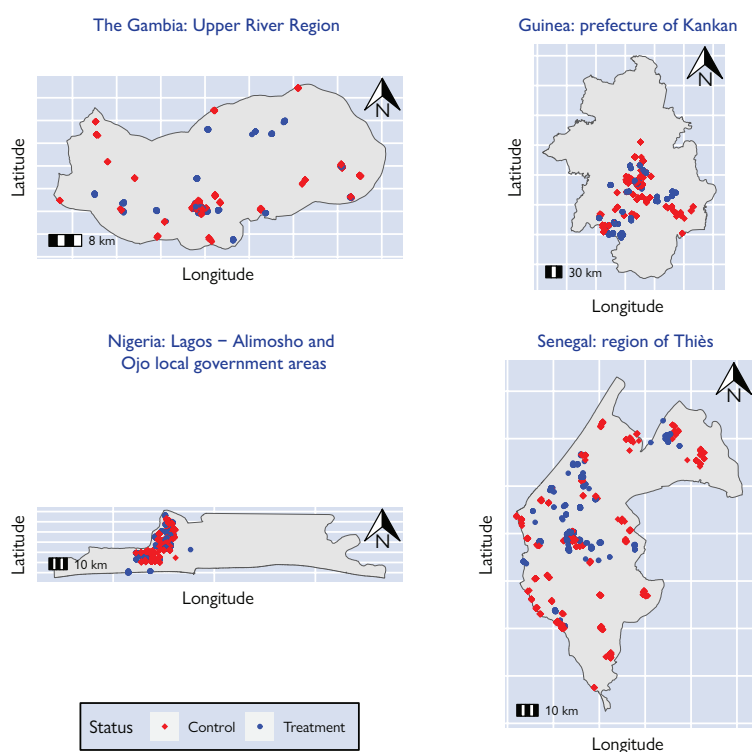
## DESCRIPTION OF THE STUDY POPULATION





A total of 13,968 individuals aged 17 to 30 were surveyed in 333 enumeration areas in the four countries. Table 4 provides the breakdown per country and per treatment status. The maps in Figure 9 illustrate the coverage of study areas for each of the countries.

**Figure 9. Treatment and control areas**



Note: The maps are for illustration purposes only. The boundaries and names shown and the designations used on these maps do not imply official endorsement or acceptance by the International Organization for Migration.

Source: Maps are produced by the authors.

**Table 4. Sample size (clusters and individuals)**

Country	Treatment status	Number of enumeration areas	Number of individuals aged 17 to 30 surveyed	
			Before the intervention	After the intervention
The Gambia	T <sup>a</sup>	29	1 416	978
	All <sup>b</sup>	79	3 811	2 665
Guinea	T	30	1 472	1 338
	All	80	3 901	3 498
Nigeria	T	30	1 051	866
	All	93	3 237	2 407
Senegal	T	30	1 257	1 036
	All	81	3 019	2 542
Total	T	119	5 196	4 218
	All	333	13 968	11 112

<sup>a</sup> T stands for “treatment group”.

<sup>b</sup> This includes both treatment and control groups.

## 7.1. Some demographic and economic characteristics

The age range of the study target is 17 to 30 years old. The average age of the sample is around 22 to 23 years old, depending on the country. The sample is not heavily gender-unbalanced, with the percentage of females ranging from 44 per cent in Guinea to 57 per cent in the Gambia. The same trend is observed for gender in the treatment and control groups. The samples in Nigeria and Senegal have more females as well. Except in Nigeria (4), the household size in the study countries is more than 10. It could be expected that there would be a high proportion of unmarried people given the target audience of the study. The baseline figures confirmed this. The proportion of married people is less than 50 per cent for all countries. This is not different for the assigned treatment group except in Guinea, where the married people are more than 50 per cent. Most of the people in the samples have at least secondary-level education and a salary as their main source of income, in all countries. Only in Guinea do the majority of the surveyed people have another main source of income other than their salary. Other demographic characteristics of the sample can be found in Table 5.

Table 5. Economic and demographic characteristics of the sample

Selected characteristics	The Gambia		Guinea		Nigeria		Senegal	
	N	Mean	N	Mean	N	Mean	N	Mean
ALL								
Age (in years)	3 811	22.44	3 843	22.91	3 235	22.49	3 019	22.54
Sex of the target person (1 = Female, 0 = Male)	3 811	0.57	3 901	0.44	3 237	0.51	3 019	0.52
Household size	3 811	11.88	3 901	10.29	3 237	4.24	3 019	11.67
Family status (1 = Married or cohabiting, 0 = Otherwise)	3 811	0.43	3 843	0.49	3 235	0.16	3 019	0.29
Number of children	3 811	0.97	3 843	1.27	3 235	0.32	3 019	0.50
Education (0 = Primary education or less, 1 = Secondary education or more)	2 657	0.68	1 283	0.74	3 189	0.83	3 019	0.79
Any work in the last 30 days (1 = Yes, 0 = No)	3 811	0.34	3 843	0.16	3 235	0.49	3 019	0.25
Source of income (1 = Salary from own work, 0 = Other sources)	3 811	0.66	3 843	0.46	3 235	0.65	3 019	0.75

Selected characteristics	The Gambia		Guinea		Nigeria		Senegal	
	N	Mean	N	Mean	N	Mean	N	Mean
TREATMENT GROUP								
Age (in years)	1 416	22.40	1 465	22.99	1 049	22.55	1 257	22.57
Sex of the target person (1 = Female, 0 = Male)	1 416	0.55	1 472	0.49	1 051	0.52	1 257	0.53
Household size	1 416	11.91	1 472	9.87	1 051	4.45	1 257	11.45
Family status (1 = Married or cohabiting, 0 = Otherwise)	1 416	0.40	1 465	0.53	1 049	0.19	1 257	0.29
Number of children	1 416	0.89	1 465	1.43	1 049	0.38	1 257	0.50
Education (0 = Primary education or less, 1 = Secondary education or more)	993	0.70	410	0.70	1 035	0.80	1 257	0.79
Any work in the last 30 days (1 = Yes, 0 = No)	1 416	0.33	1 465	0.16	1 049	0.48	1 257	0.24
Source of income (1 = Salary from own work, 0 = Other sources)	1 416	0.68	1 465	0.42	1 049	0.65	1 257	0.75
CONTROL GROUP								
Age (in years)	2 395	22.46	2 378	22.86	2 186	22.46	1 762	22.51
Sex of the target person (1 = Female, 0 = Male)	2 395	0.57	2 429	0.42	2 186	0.50	1 762	0.51
Household size	2 395	11.86	2 429	10.54	2 186	4.15	1 762	11.83
Family status (1 = Married or cohabiting, 0 = Otherwise)	2 395	0.44	2 378	0.47	2 186	0.15	1 762	0.29
Number of children	2 395	1.02	2 378	1.17	2 186	0.29	1 762	0.50
Education (0 = Primary education or less, 1 = Secondary education or more)	1 664	0.67	873	0.76	2 154	0.84	1 762	0.78
Any work in the last 30 days (1 = Yes, 0 = No)	2 395	0.34	2 378	0.16	2 186	0.50	1 762	0.26
Source of income (1 = Salary from own work, 0 = Other sources)	2 395	0.65	2 378	0.48	2 186	0.65	1 762	0.75

## 7.2. Some migration characteristics

More than half and more than one third of the samples in, respectively, Guinea (52%) and the Gambia (39%) are keen to undergo irregular migration journeys – that is, without having the required documents before travelling. The same trend is noted in the treatment and control groups. This proportion is lower in Senegal (8% for the whole sample). Another interesting baseline characteristic is the percentage of people who “trust” voluntary return migrants with irregular migration experience. The proportion ranges from 52 per cent in Guinea to 79 per cent in the Gambia. Apart from Guinea, this proportion is above 70 per cent in other study areas. These figures prove afterwards the relevance of the Migrants as Messengers (MaM) approach – that is, to leverage the experience of voluntary return migrants to raise awareness of the risks associated with irregular migration and avoid institutional interventions. Indeed, at the same time, trust in the easiness of finding information from official sources is somehow low. It starts from 10 per cent in Guinea to 28 per cent in the Gambia. Other noticeable elements from the samples are as follows:

- (a) The high proportion of people who know a returnee with irregular migration experience in Nigeria (84%);
- (b) The high proportion of people in the Gambia sample who have contact with someone abroad;
- (c) Almost one third of the sample in the Gambia have declared receiving remittances.

Further details on the migration characteristics of the samples are provided in the table below.

Table 6. Some baseline characteristics of the study population

Selected characteristics	The Gambia		Guinea		Nigeria		Senegal	
	N	Mean	N	Mean	N	Mean	N	Mean
ALL								
General consideration to leave the country	2 752	0.72	797	0.20	2 607	0.81	1 845	0.61
Intention to migrate irregularly <sup>39</sup>	1 046	0.27	412	0.11	422	0.13	156	0.05
Intention to migrate irregularly among those with general interest in migration <sup>40</sup>	1 721	0.39	797	0.52	2 607	0.16	1 845	0.08
Returnee, irregular, good source of information	2 395	0.79	3 843	0.52	3 235	0.71	3 019	0.74
Easy-to-find information from official sources	2 395	0.28	3 901	0.10	3 237	0.27	3 019	0.20
Receives remittances	1 721	0.32	3 566	0.09	1 492	0.24	1 968	0.19
Knows a returnee with irregular migration experience	1 046	0.14	500	0.27	1 036	0.84	3 019	0.20
Has contact with people abroad	2 395	0.65	3 843	0.18	3 235	0.43	3 019	0.41

<sup>39</sup> The denominator is the sample size in the country.

<sup>40</sup> The intention to migrate irregularly was calculated from the question: “If you can’t get a visa to migrate, will you still try to do it otherwise?” This came after a series of questions, starting with, “Are you considering leaving the country to live in another country?” The denominator in the calculation did not include those who answered “no” to this last question.

Selected characteristics	The Gambia		Guinea		Nigeria		Senegal	
	N	Mean	N	Mean	N	Mean	N	Mean
TREATMENT GROUP								
Intention to migrate irregularly	1 031	0.37	270	0.56	845	0.16	768	0.08
Returnee, irregular, good source of information	1 416	0.81	1 465	0.49	1 049	0.71	1 257	0.75
Easy-to-find information from official sources	1 416	0.28	1 472	0.08	1 051	0.27	1 257	0.20
Receives remittances	961	0.33	1 358	0.08	539	0.22	801	0.20
Knows a returnee with irregular migration experience	598	0.17	173	0.29	323	0.86	1 257	0.20
Has contact with people abroad	1 416	0.64	1 465	0.14	1 049	0.39	1 257	0.44
CONTROL GROUP								
Intention to migrate irregularly	1 721	0.39	527	0.50	1 762	0.16	1 077	0.09
Returnee, irregular, good source of information	2 395	0.79	2 378	0.54	2 186	0.71	1 762	0.74
Easy-to-find information from official sources	2 395	0.28	2 429	0.11	2 186	0.27	1 762	0.19
Receives remittances	1 721	0.32	2 208	0.10	953	0.24	1 167	0.18
Knows a returnee with irregular migration experience	1 046	0.14	327	0.26	713	0.83	1 762	0.21
Has contact with people abroad	2 395	0.65	2 378	0.20	2 186	0.45	1 762	0.40

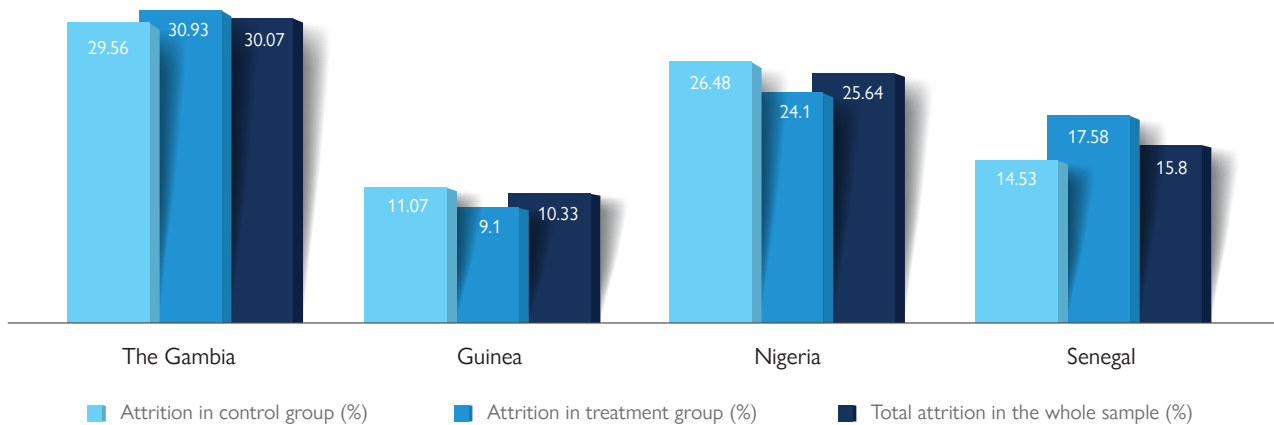
### 7.3. Attrition

Attrition<sup>41</sup> is a key element of any survey-based evaluations, including randomized controlled trials and cluster randomized controlled trials. Attrition can be considered at two levels: cluster level and individual level. In this study, no attrition was noted at the cluster level (enumeration area level) except in the Gambia, where one cluster in the treatment group has been removed. This is because the intervention was not possible in that enumeration area due to practical reasons.

Attrition was examined at the individual level as well – that is, the surveyed people at baseline who were not surveyed for various reasons at end line. This is an important parameter to consider because those individuals who dropped out from the survey may be different from those who stayed. During the design of the study, the expected attrition was set at 30 per cent as the ceiling. Apart from the Gambia, where it was slightly higher than the ceiling in the treatment group (30.9%), the attrition rate was under this level in all the countries. The final attrition in each country (total, in the treatment and control groups) is provided in Figure 10.

<sup>41</sup> Attrition is the loss of study units from a sample, i.e. individuals who do not participate in the end-line survey but have participated in the baseline survey.

Figure 10. Attrition per country



Source: Graph is produced by the authors.

It is worth noting that there were no significant differences in attrition rates between the control and treatment groups in all the countries. Therefore, attrition is balanced across the countries between the treatment and control groups.

## 7.4. Exposure to the interventions

Another important parameter of interest in this study is exposure to treatment. In technical terms, this is often called “compliance with treatment” and refers to the level of participation in the Migrants as Messengers Phase 2 (MaM-2) activities among those who live in the communities that have been selected for MaM-2 to take place. Individuals may either be (1) directly exposed by participating in the activities, (2) indirectly exposed by hearing about the activities from friends and family, or (3) not exposed at all.

It was not possible to practically observe individual exposure to treatment. To gauge the actual exposure, the end-line questionnaire in each country included a series of questions trying to do the following:

- Check which respondent actually attended a migration-related event in the few months preceding the end-line survey.
- Gauge the quality of the attendance. Here the goal was to see if it was full attendance or not.
- Verify whether the respondent knew the organizer or not. This question was a means to verify if the person differentiated Volunteers and IOM.
- Verify the type of activity attended, as well as the content. These two questions also served to ensure that the activity attended was an MaM-2 activity. The question about the content of the activity was open-ended.

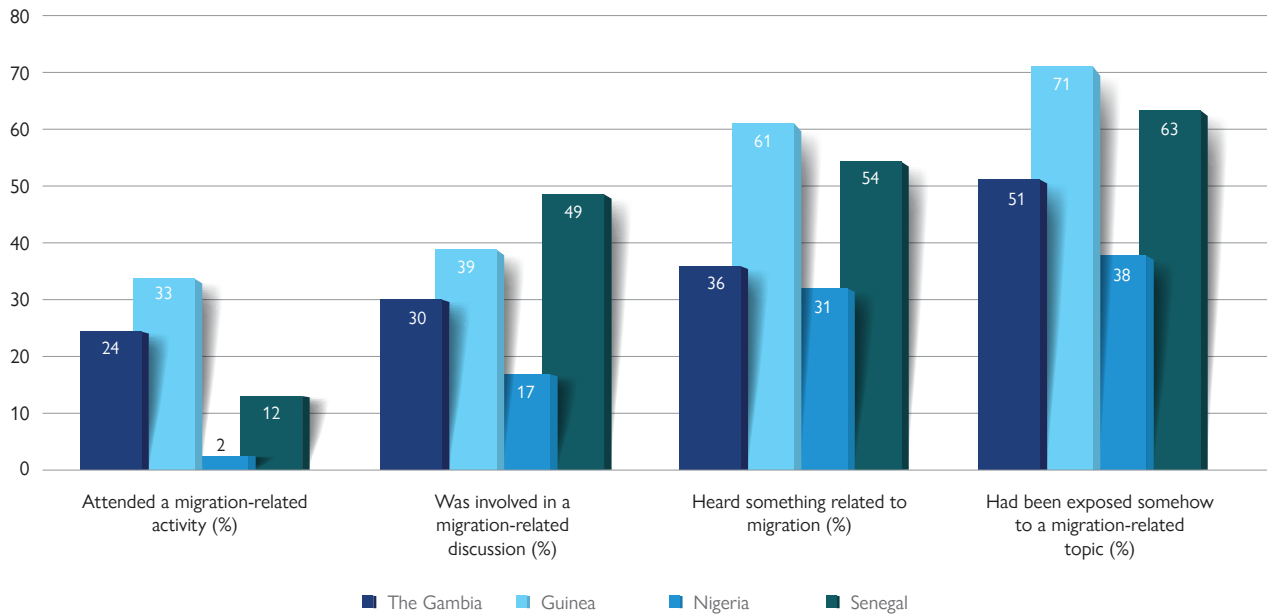
A similar series of questions have been asked to check the “spread” of the intervention beyond the direct attendees.

In order to simplify this report, only the first direct question was considered for exposure to treatment. It could be argued that this does not ensure that the respondent has been exposed to an MaM-2 intervention. However, given that one of the criteria in selecting the study area was its low exposure to awareness-raising activities, it is unlikely that a large-scale MaM-2-like intervention took place in the period targeted in the areas treated.

Figure 11 provides declarative information about exposure per country in different cases. In general, the actual attendance is low, particularly in Nigeria. However, Figure 11 shows that the message has been spread around.

The interventions took place only in the treatment enumeration areas. There was no strong mechanism to verify the absence of spillovers.<sup>42</sup> Even if this was possible, it would have been unethical to discourage some people in the control group wishing to participate in the activities to do so. Therefore, only participation of treatment enumeration areas has been promoted through different means by the programme team. At the same time, nothing was done to discourage participation in events of those from control areas. This is accounted for in the way the data have been analysed to get results (see below).

Figure 11. Exposure per country



Source: Graph is produced by the authors.

The above figure shows, in general, a low real exposure but a significant secondary-level exposure either to MaM-2 interventions or other migration-related activities. One can see from Table 7 that two-side non-compliance<sup>43</sup> occurred in each of the countries. In Nigeria, participation was almost the same in the control and treatment groups. One can note, when going through the details of the quality of the exposure, that in Guinea and Senegal, more people in the control group declared having participated in the events. This situation in exposure will contribute to determining the types of analysis to perform.

<sup>42</sup> That is, people in the control group that were exposed to the intervention.

<sup>43</sup> There were non-attendees in the treatment group and attendees in the control group.

Table 7. Declarative exposure to the intervention per country and random assignment status

	The Gambia		Guinea		Nigeria		Senegal	
	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment
Attendance status	N = 1 687	N = 978	N = 2 160	N = 1 338	N = 1 620	N = 787	N = 1 506	N = 1 036
Attended	24.0	52.0	28.0	51.0	3.3	3.4	5.9	27.0
Quality of attendance	N = 1 687	N = 978	N = 599	N = 688	N = 53	N = 27	N = 89	N = 279
Full (%)	7.9	21.0	32.0	28.0	34.0	44.0	54.0	34.0
Partial (%)	4.7	9.1	31.0	28.0	40.0	48.0	10.0	39.0
Was around (%)	10.0	21.0	27.0	41.0	26.0	7.4	28.0	23.0
Does not remember (%)	1.3	1.1	9.8	3.9	-	-	7.9	3.6
Organizer	N = 1 687	N = 978	N = 599	N = 688	N = 53	N = 27	N = 89	N = 279
IOM (%)	14.0	33.0	54.0	57.0	5.7	7.40	31.0	71.0
Return migrants (%)	1.9	5.4	5.5	4.2	13.0	11.0	6.7	3.2
Other NGOs (%)	1.4	3.0	16.0	9.4	21.0	22.0	16.0	5.7
Other non-NGOs (%)	0.7	0.9	4.3	2.6	13.0	19.0	7.9	0.7
Does not remember (%)	6.5	9.6	20.0	27.0	47.0	41.0	38.0	19.0
Type of activity	N = 408	N = 508	N = 599	N = 688	N = 53	N = 27	N = 89	N = 279
Educational talk (%)	78.0	83.0	41.0	27.0	75.0	70.0	64.0	71.0
Street art (%)	2.7	7.7	42.0	57.0	3.8	11.0	5.6	1.8
Theatre (%)	17.0	24.0	47.0	72.0	3.8	7.4	19.0	75.0
Other (%)	6.1	4.9	5.2	5.1	9.4	3.7	7.9	6.8
Does not remember (%)	8.6	6.3	8.2	3.8	11.0	11.0	20.0	3.6



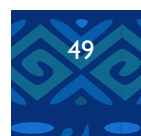
## 7.5. Data analysis methods

The above overview of the study population implied some specificities in our analysis:

- (a) First, the two-side non-compliance that was noted involves a specific type of analysis as per the literature (van der Windt, n.d.), which is the local average treatment effect (LATE). The LATE is the effect of treatment on compliers – that is, the study units that complied with their assignment status (units in the treatment group that were treated, units in the control group that were not treated).
- (b) To compute the LATE, it was necessary to estimate the compliers proportion for each country (Gerber and Green, 2012). The estimates gave, respectively, 28 per cent compliers in the Gambia, 24 per cent in Guinea, 2 per cent in Nigeria and 21 per cent in Senegal. Therefore, it did not make much sense to retain Nigeria in the results analysis below, given the extremely low proportion of compliers. The country has then been removed from the results section.
- (c) In addition to the LATE and in order to try to have a proxy estimation of the effects on the community, the intention to treat (ITT) effect has been computed in the countries. This is a conservative treatment effect since it ignores the actual treatment status and rely only on the assignment status.<sup>44</sup> The ITT is the effect of MaM-2 activities on people living in the community where activities took place, regardless of whether they participated in them.
- (d) Given the low number of people reporting having contacted a facilitator in the countries, the attitude indicator was excluded from the analysis. The results reported concerned knowledge outcomes (6 indicators), perceptions outcomes (10 indicators) and intention outcomes (1 indicator).
- (e) Eventually, given the high number of unbalanced indicators in Senegal and Guinea (see Annex 3 for details) at baseline, the difference-in-difference estimation has been computed as suggested by some authors like David McKenzie (Özler, 2015).

The results are provided in Section 8.

<sup>44</sup> Remember that being assigned to a group does not mean that the actual situation will be in line with that assignment.







# 8

## THE RESULTS



## 8.1. The results in the Gambia

### 8.1.1. The outcomes before the intervention in the Gambia

#### 8.1.1.1. Knowledge of irregular migration issues and local opportunities before the intervention in the Gambia

In the Upper River Region (URR) in the Gambia, the baseline data revealed that a bit more than half of the people know countries to transit through on an irregular migration journey to Europe, starting from the Gambia. This can justify afterwards the need to provide such information. The knowledge of sources for finding local opportunities is also low in URR. For all the main sources considered (government offices, non-governmental organizations (NGOs), online sources, personal network), the percentage of people who declared that they can find information about local opportunities in these places is lower than 50 per cent. Overall, when combining several knowledge variables to get an index of knowledge of information related to irregular migration and local opportunities, the baseline data revealed that the level of knowledge can be considered as low. Only 51 per cent of Gambians living in URR aged 17 to 23 have an acceptable<sup>45</sup> knowledge of irregular migration issues and local opportunities. Table 8 provides the detailed figures for each of the indicators of knowledge.

**Table 8. Description of indicators of knowledge before the intervention in the Gambia**

Knowledge indicators before the intervention in the Gambia	N	All <sup>a</sup>	N	Control	N	Treatment
Knows countries to transit through during irregular migration from one's country	3 811	0.51	2 395	0.50	1 416	0.52
Knows government offices as source to find information about local job opportunities	3 811	0.23	2 395	0.23	1 416	0.24
Knows NGOs as source to find information about local job opportunities	3 811	0.10	2 395	0.10	1 416	0.10
Knows online tools as source to find information about local job opportunities	3 811	0.17	2 395	0.17	1 416	0.17
Knows a personal network as source to find information about local job opportunities	3 811	0.43	2 395	0.41	1 416	0.47
Index of knowledge of irregular migration issues	3 811	0.51	2 395	0.51	1 416	0.50

<sup>a</sup> This includes both treatment and control groups.

#### 8.1.1.2. Perceptions of irregular migration risks before the intervention in the Gambia

For almost all commonly known risks for people who embark on irregular migration journeys, the proportion of people who think that the risk could happen to them is under 80 per cent among the study target group in URR in the Gambia. Only the proportion of people who think that they can be injured or get ill is slightly above 80 per cent. Stated another way, it means that one fifth of URR people aged 17 to 30 do not believe that they can be affected by commonly known risks on irregular migration journeys. So they underestimate these risks.

On the other side, 51 per cent of the target group of the study in URR believe that they can send remittances to families back home less than 12 months after they reach Europe through an irregular migration trip. This is an overestimation regarding the realities of migrants who have reached Europe through irregular migration journeys.

Eventually the data before the intervention reveal that the target audience perceive it to be difficult finding information about local opportunities, since only slightly more than one third (37%) think that it is easy to find local opportunities.

Overall, the index of perception of risk, which includes several indicators pulled together, shows the proportion of perceptions of commonly known risks at around 50 per cent of the target population in URR. This means that half of the

<sup>45</sup> See Annex 4 (Section 12.4.2.3) for what is considered an acceptable level of knowledge in this study.

target URR population do not believe that they can personally be affected by commonly known risks on potential irregular migration journeys. Table 9 provides details on the perception indicators in the Gambia at baseline.

**Table 9. Description of indicators of perceptions before the intervention in the Gambia**

Indicators of perceptions before the intervention in the Gambia	N	All <sup>a</sup>	N	Control	N	Treatment
Thinks that one can send back remittances in less than one year after entering Europe, for a person who entered without legal documents	3 570	0.51	2 233	0.51	1 337	0.52
Perceives it easy to find information about local opportunities in one's country	3 811	0.37	2 395	0.37	1 416	0.37
Thinks that physical injury or illness could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 811	0.74	2 395	0.73	1 416	0.76
Thinks that death could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 811	0.82	2 395	0.82	1 416	0.83
Thinks that gender-based violence could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 811	0.78	2 395	0.76	1 416	0.80
Thinks that deprivation of liberty could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 811	0.82	2 395	0.81	1 416	0.85
Thinks that abandonment along the journey could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 811	0.81	2 395	0.81	1 416	0.81
Thinks that imprisonment could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 811	0.81	2 395	0.80	1 416	0.82
Thinks that forced labour could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 811	0.79	2 395	0.79	1 416	0.79
Is aware of all the risks one can face during an irregular migration journey	3 811	0.48	2 395	0.47	1 416	0.51

<sup>a</sup> This includes both treatment and control groups.

### 8.1.1.3. Attitude and Intention before the intervention in the Gambia

The attitude and intention indicators can be considered as improvable in URR in the Gambia. Indeed, about 42 per cent of URR people aged 17 to 30 who are considering leaving the country to live in another would do so even without getting legal documents. This is a clear indicator of an established intention to migrate irregularly. Among these people, 5 per cent had even taken a step already by contacting a smuggler<sup>46</sup> or someone not reluctant to engage in smuggling.

<sup>46</sup> The word "facilitator" was used instead in the questionnaire, but considering the question flow, the person contacted when willing to leave the country even without legal documents is likely to be a smuggler or someone in the smuggling network.

Table 10. Description of indicators of attitude and intention before the intervention in the Gambia

Indicators of attitude and intention before the intervention in the Gambia	N	All <sup>a</sup>	N	Control	N	Treatment
Contacted a facilitator	551	0.05	372	0.04	179	0.06
Intends to migrate irregularly	2 752	0.38	1 721	0.39	1 031	0.37

<sup>a</sup> This includes both treatment and control groups.

### 8.1.2. The effects of the intervention in the Gambia

Figure 12 presents the effects of the intervention conducted in the Gambia on the (complier) participants. From the figure, it appears that the intervention in the Gambia significantly affected the knowledge and perception indicators. The effect size<sup>47</sup> ranges in absolute value from 0.7 percentage point<sup>48</sup> to 21 percentage points for knowledge indicators, and from 1.6 percentage points to 20 percentage points for perception indicators. It can be observed in Figure 12 that the effect on 2 knowledge indicators out of 6, and 4 perception indicators out of 10 can be attributed to chance.<sup>49</sup> It can also be observed that most of the effects on knowledge indicators in the Gambia were not what one should expect.<sup>50</sup> This means, for example, that for the knowledge of countries to transit through for an irregular migration from the Gambia, the estimate suggests that being exposed to the intervention decreased the rates of knowledge by 15 percentage points. The only knowledge indicator where an increase was noted is the knowledge of a personal network as source to find information about local job opportunities (21-percentage-point increase). A non-expected effect can also be observed for the intention to migrate irregularly, where an increase<sup>51</sup> of 11 percentage points among compliers was noted.

In contrast to knowledge and intention, the effects of the intervention on most of the indicators of perceptions in the Gambia were expected, and the causality is strongly established. Only the perception of easiness to find information about local job opportunities decreased significantly. This is consistent with the previous results on knowledge indicators.

The above results in the Gambia suggest that the intervention highly influenced the perceptions. This is interesting as it confirms that sharing true emotional testimony can play a role in the changing of perceptions. The results also suggest that the exposed people may have practically observed that the information received during the intervention does not work in reality. For instance, if people were informed that they can get information about local job opportunities through online sources, and they tried it and found that it did not work, they may end up thinking that this is not a credible source and will not list it as one source when asked later on. The combination of the decrease of the perception of easiness of finding information about local opportunities, and the reduction in knowledge of various indicators related to that, strongly supports this assumption.

The decrease in the knowledge of transit countries may suggest also that the message seems to have clouded the knowledge of those exposed to the intervention in the Gambia. This is a possible explanation as well. In such case, and given the interesting results on perceptions, this could suggest improving the informative part of the interventions to make it clear when it is intended to change knowledge. Overall, these results tend to confirm the following:

- (a) The intervention in the Gambia was effective in improving perceptions of risks associated with irregular migration.
- (b) Knowledge shared from the awareness campaigns can be deterred by the actual situation on the field.
- (c) Knowledge shapes perceptions as suggested in the literature.
- (d) Further investigations (qualitative but also quantitative follow-up) may help better understand these results.

<sup>47</sup> The effect size refers to the change (negative or positive) in percentage due to the intervention.

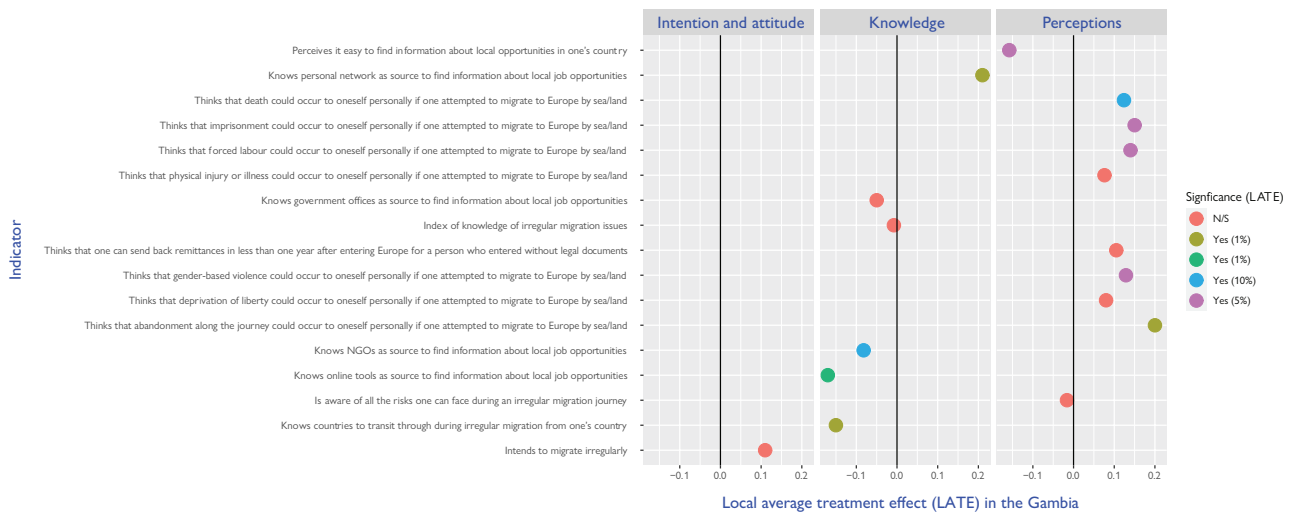
<sup>48</sup> That is, difference in percentages between the control and treatment groups.

<sup>49</sup> In technical terms, it is said that the effect is not "statistically significant". The two indicators concerned are (a) knowledge of government offices as source to find information about local job opportunities and (b) the index of knowledge about irregular migration and local opportunities. The perception indicators concerned are the index of perception of risk, the perception of physical injury or illness, deprivation of liberty, and the easiness of sending back remittances.

<sup>50</sup> The estimates are on the left side of the vertical line, so they are negative. This means they decreased when the intervention should improve the knowledge indicators.

<sup>51</sup> This is statistically not significant, so it may be due to chance.

Figure 12. The estimated effects of the intervention on compliers in the Gambia



Source: Authors' estimations.

### 8.1.3. Gender and residential area effects in the Gambia

This section analyses whether the project effects change depending on the subgroups of gender and residential area.

In the Gambia, the project effects change depending on the residential area (urban versus rural), for all the knowledge outcomes except for the index of knowledge of irregular migration issues, which is obtained when combining several knowledge variables to get an index. Out of five knowledge outcomes with different effects on the residential areas in the Gambia, three are significant only in urban areas and two only in rural areas. There is no change in the impact on residential area for the intention to migrate irregularly. As for the knowledge outcomes, the project effects change according to the residential area for most of the indicators of perceptions. Out of 10 indicators of perceptions, the project effect changes according to the residential area for 7 indicators. There is no difference in the impact on the residential area for three indicators, which are as follows: sending back remittances, risk of abandonment along the journey and risk of forced labour.

In the Gambia, the project effects observed are similar when considering the subsample of gender for the knowledge outcomes, except for the knowledge of NGOs as source to find information about local job opportunities and the knowledge of a personal network as source to find information about local job opportunities. The project effects do not change for male and female for the intention to migrate irregularly. For the perception indicators, the project effects do not change according to the gender for four indicators, which are as follows: risk of physical injury or illness, risk of gender-based violence, risk of deprivation of liberty and the risk of suffering commonly known risks during an irregular migration journey.



## 8.2. The results in Guinea

### 8.2.1. The outcomes before the intervention in Guinea

#### 8.2.1.1. Knowledge of irregular migration issues and local opportunities before the intervention in Guinea

In Guinea, the baseline characteristics of knowledge outcomes revealed that few of the respondents (9%) at baseline know countries to transit through for an irregular migration journey to Europe, starting from their country (Guinea).

The knowledge of sources for finding local opportunities is globally low. For all the main sources (government offices, local NGOs, online sources, personal network), the percentage of people who declared knowing that one can find information about local opportunities at these places is lower than 50 per cent. Respectively, 15 per cent and 18 per cent know local government offices and local NGOs as places to find information about local opportunities. A small proportion (7%) know online sources as a place to find information about local opportunities. A slightly higher proportion of respondents (33%) at baseline know a personal network as channel to find information about local opportunities.

Overall, when combining several knowledge variables to get an index of knowledge of irregular migration and local opportunities, Table 11 revealed that, at baseline, the level of knowledge is low. Only 4 per cent of the surveyed Guineans aged 17 to 23 have an acceptable knowledge of irregular migration issues and local opportunities.

**Table 11. Description of indicators of knowledge before the intervention in Guinea**

Outcomes	N	All <sup>a</sup>	N	Control	N	Treatment
Knows countries to transit through during irregular migration from one's country	3 901	0.09	2 429	0.10	1 472	0.08
Knows government offices as source to find information about local job opportunities	3 843	0.15	2 378	0.14	1 465	0.16
Knows NGOs as source to find information about local job opportunities	3 843	0.18	2 378	0.17	1 465	0.19
Knows online tools as source to find information about local job opportunities	3 843	0.07	2 378	0.08	1 465	0.06
Knows personal network as source to find information about local job opportunities	3 843	0.33	2 378	0.30	1 465	0.38
Index of knowledge of irregular migration issues	3 901	0.04	2 429	0.04	1 472	0.05

<sup>a</sup> This includes both treatment and control groups.

#### 8.2.1.2. Perceptions of irregular migration risks before the intervention in Guinea

People who embark on irregular migration journeys face risks, and risk perceptions can vary from one potential migrant to another and from one country to another. Among the surveyed group in Guinea, the proportion of people who think that they could be at risk is around 75 per cent. In other words, most of the surveyed people aged 17 to 30 believe that they can be affected by different risks when deciding to undertake an irregular migration journey. So they are globally aware of the risks. Moreover, 70 per cent of the surveyed people in Guinea believe that they can send remittances to families back home, less than 12 months after they reach Europe by taking irregular migration routes.

In addition, Table 12 reveals that few of the surveyed people perceive it easy finding information about local opportunities in Guinea. From the baseline survey, only 10 per cent think that it is easy to find local opportunities in the country.

The index of perception of risk, which includes several indicators pulled together, shows the proportion of perceptions of commonly known risks at around 44 per cent of the surveyed population in Guinea. This means that less than half of the target population know that they can face potential risks during irregular migration journeys. Table 12 provides details on the perception indicators in Guinea at baseline.

Table 12. Description of indicators of perceptions before the intervention in Guinea

Outcomes	N	All <sup>a</sup>	N	Control	N	Treatment
Thinks that one can send back remittances in less than one year after entering Europe, for a person who entered without legal documents	3 843	0.70	2 378	0.68	1 465	0.74
Perceives it easy to find information about local opportunities in one's country	3 901	0.10	2 429	0.11	1 472	0.10
Thinks that physical injury or illness could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 843	0.78	2 378	0.78	1 465	0.77
Thinks that death could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 843	0.75	2 378	0.79	1 465	0.68
Thinks that gender-based violence could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 843	0.76	2 378	0.80	1 465	0.70
Thinks that deprivation of liberty could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 843	0.78	2 378	0.79	1 465	0.76
Thinks that abandonment along the journey could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 843	0.78	2 378	0.80	1 465	0.73
Thinks that imprisonment could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 843	0.76	2 378	0.81	1 465	0.69
Thinks that forced labour could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 843	0.73	2 378	0.77	1 465	0.68
Is aware of all the risks one can face during an irregular migration journey	3 843	0.44	2 378	0.47	1 465	0.41

<sup>a</sup> This includes both treatment and control groups.

### 8.2.1.3. Attitude and intention before the intervention in Guinea

The descriptions of attitude and intention outcomes before the intervention for Guinea show that about 52 per cent of respondents who are considering leaving the country to live in another country would do so even without getting legal documents. This is a clear indicator of an established intention to migrate irregularly. Among these people, about 5 per cent had even taken a step already by contacting a smuggler or someone not reluctant to engage in smuggling.

Table 13. Description of indicators of attitude and intention before the intervention in Guinea

Outcomes	N	All <sup>a</sup>	N	Control	N	Treatment
Contacted a facilitator	101	0.10	72	0.08	29	0.14
Intends to migrate irregularly	797	0.52	527	0.50	270	0.56

<sup>a</sup> This includes both treatment and control groups.

### 8.2.2. The effects of the interventions in Guinea

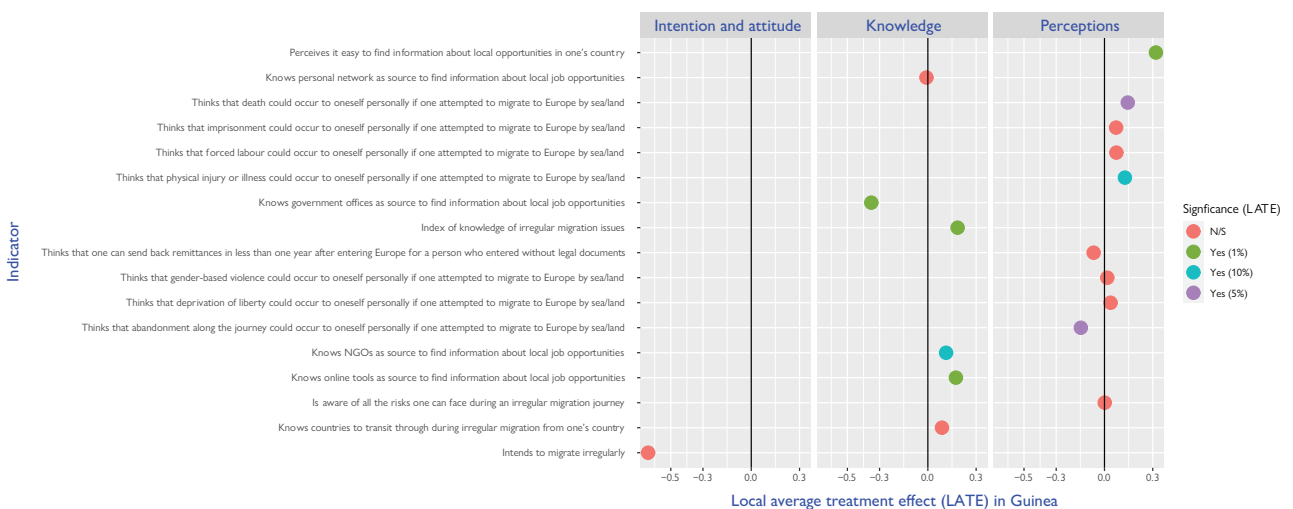
The intervention in Guinea worked better compared to the one in the Gambia. The effect size ranges in Guinea from 0.9 per cent to 35 per cent for the indicators of knowledge and from 0.2 per cent to 32 per cent for those of perceptions. More results are stronger than in the Gambia. Indeed, the results indicate that 4 indicators of knowledge out of 6 are significantly affected, and 4 indicators of perceptions out of 10 are also significantly affected by the intervention. In contrast to the above findings in the Gambia, less indicators were affected reversely.

Looking in detail at the results, one can see that the intervention in the prefecture of Kankan in Guinea increased by, respectively, 11 percentage points and 17 percentage points the knowledge of NGOs and online sources as places where information about local opportunities can be found. A reversed effect was noted for the knowledge of government offices as a source to find information about local opportunities (decrease of 35 percentage points). This strange result may be linked to the political context in Guinea during the period of the intervention and the end-line data collection. The political context probably affected the quality of information reception shared during the intervention, creating a possible rejection of information in the treatment group for this indicator. The control group, not having been exposed to this information, may have relied on certainties present outside the intervention. Most interestingly, the results show a significant increase by 19 percentage points in the index of knowledge of irregular migration issues and local opportunities. This means that overall, the intervention had an effect on knowledge in Guinea.

A similar effect was observed for the indicators of perceptions. The intervention increased by 32 percentage points the perception of the easiness of finding information about local opportunities in the prefecture of Kankan in Guinea among the target people exposed to said intervention. This confirms that the above result on the knowledge of government offices as source to find information on local opportunities is likely to be a defiance in the treatment areas, related to the political context during the intervention and the end-line period. Regarding the perceptions of the risks, in addition to the fact that the index of perception of risk increased by 0.2 per cent, one can observe from the results an increase by, respectively, 13 percentage points and 15 percentage points of the perceptions that physical injury or illness and death could occur during an irregular migration journey. The 15-percentage-point decrease in the perception that one can be abandoned along the road on an irregular migration journey may be due to the weakness of the stories shared on that aspect of the intervention.

Eventually one can observe a decrease in the intention to migrate by 64 percentage points and a decrease in the number of people who report contacting a smuggler by 3 percentage points. However, these results are not strong enough since they can be due to chance.<sup>52</sup>

Figure 13. The estimated effects of the intervention on compliers in Guinea



Source: Authors' estimations.

<sup>52</sup> Not statistically significant.

Overall, the intervention in Guinea has been more effective on knowledge and perceptions, with few unintended effects on knowledge. However, here as well, the mixed effects advocate further investigations to understand why the results are as such. The causality is established, but how the mechanisms work needs to be further explained.

### 8.2.3. Gender and residential area effects in Guinea

Further analysis has been performed on the effects of the project for subgroups of gender and residential-area respondents living in urban areas.

In Guinea, the campaign effects changes for male and female subgroups only for two knowledge indicators. The subgroup analysis shows that the campaign effect is not similar for male and female for the knowledge of countries to transit through when travelling irregularly from one's country and the index of knowledge of irregular migration issues. The intention to migrate irregularly does not vary for male and female.

Out of 10 perception indicators, the project effect changes for male and female for 4 indicators. The project effect is positive and significant only for the female subgroup for the perception of thinking that physical injury or illness could occur to oneself personally if one attempted to migrate irregularly to Europe by sea/land. The effect is positive and significant at 10 per cent only for the male subgroup for the perception that death could occur to oneself personally if one attempted to migrate irregularly to Europe by sea/land.

About the perceptions, the project effect is significant only in the male subgroup for the perception of thinking that abandonment along the journey could occur to oneself personally if one attempted to migrate to Europe by sea/land and the perception of being aware of all the risks that one can face during an irregular migration journey.

Three indicators of knowledge are significant only in the rural subgroup. In other words, the project effect is significant only in rural areas for the knowledge of government offices as source to find information about local job opportunities, the knowledge of online tools as source to find information about local job opportunities and the index of knowledge of irregular migration issues. Out of 10 indicators of perceptions, the project effects change according to the residential area for 5 indicators. The project has a significant effect only for respondents living in rural areas for the perception of the easiness to find information about local opportunities in one's country, the perception of thinking that physical injury or illness could occur to oneself personally if one attempted to migrate to Europe irregularly by sea/land, the perception of thinking that abandonment along the journey could occur to oneself personally if one attempted to migrate to Europe irregularly by sea/land, the perception of thinking that imprisonment could occur to oneself personally if one attempted to migrate to Europe by sea/land, and the perception of thinking that forced labour could occur to oneself personally if one attempted to migrate to Europe by sea/land.

## 8.3. The results in Senegal

### 8.3.1. The outcomes before the intervention in Senegal

#### 8.3.1.1. Knowledge of irregular migration issues and local opportunities before the intervention in Senegal

Table 14 reports the knowledge outcomes description at baseline in Senegal. Few of the respondents (11%) know countries to transit through on an irregular migration journey to Europe, starting from Senegal.

About the main sources (government offices, local NGOs, online sources, personal network) for finding information on local opportunities, less than half of the surveyed people declared knowing that one can find information about local opportunities. Specifically, 31 per cent know that they can find information from local government offices, 20 per cent from local NGOs, 22 per cent from online sources and 40 per cent from personal networks.

Overall, by combining several knowledge variables to get an index of knowledge of irregular migration and local opportunities, only 22 per cent have an acceptable index of knowledge of irregular migration issues at baseline in Senegal.

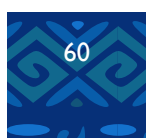


Table 14. Description of indicators of knowledge before the intervention in Senegal

Outcomes (Senegal)	N	All <sup>a</sup>	N	Control	N	Treatment
Knows countries to transit through during irregular migration from one's country	3 019	0.11	1 762	0.10	1 257	0.13
Knows government offices as source to find information about local job opportunities	3 019	0.31	1 762	0.27	1 257	0.36
Knows NGOs as source to find information about local job opportunities	3 019	0.20	1 762	0.16	1 257	0.26
Knows online tools as source to find information about local job opportunities	3 019	0.22	1 762	0.20	1 257	0.24
Knows personal network as source to find information about local job opportunities	3 019	0.40	1 762	0.42	1 257	0.37
Index of knowledge of irregular migration issues	3 019	0.22	1 762	0.20	1 257	0.23

<sup>a</sup> This includes both treatment and control groups.

### 8.3.1.2. Perceptions of irregular migration risks before the intervention in Senegal

For the globally well-known risks for people who embark on irregular migration journeys, the proportion of people who think that they can be injured, get sick or die is more than 80 per cent among the study target group in Senegal.

For all the other risks that people can face when undertaking an irregular migration journey, the proportion of people who think that the risk could happen to them is under 50 per cent among the study target group in Senegal. Roughly speaking, this means that less than 50 per cent of people aged 17 to 30 surveyed in Senegal do believe that they can be affected by commonly known risks on irregular migration journeys. In other words, they misunderstand or underestimate the risks.

About 62 per cent of the target group of the study in Senegal believe that they can send remittances to families back home, less than 12 months after they reach Europe through an irregular migration route. This can be explained by a misunderstanding of the realities that migrants face when they reach Europe through irregular migration.

Table 15 reveals that the surveyed people perceive it difficult finding information about local opportunities, since less than one third (28%) think that it is easy to find local opportunities.

Overall, the index of perception of risk, which includes several indicators pulled together, shows the proportion of perceptions of commonly known risks at 40 per cent of the surveyed population in Senegal. This means that less than half of the target population do not believe that they can be personally affected by commonly known risks on a potential irregular migration journey. Table 15 provides details on the perception indicators in Senegal at baseline.

Table 15. Description of indicators of perceptions before the intervention in Senegal

Outcomes (Senegal)	N	All <sup>a</sup>	N	Control	N	Treatment
Thinks that one can send back remittances in less than one year after entering Europe, for a person who entered without legal documents	2 469	0.62	1 434	0.61	1 035	0.62
Perceives it easy to find information about local opportunities in one's country	3 019	0.28	1 762	0.28	1 257	0.28
Thinks that physical injury or illness could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 019	0.82	1 762	0.77	1 257	0.87

<sup>a</sup> This includes both treatment and control groups.

Outcomes (Senegal)	N	All <sup>a</sup>	N	Control	N	Treatment
Thinks that death could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 019	0.81	1 762	0.78	1 257	0.85
Thinks that gender-based violence could occur to oneself personally if one attempted to migrate to Europe by sea/land	350	0.05	192	0.05	158	0.05
Thinks that deprivation of liberty could occur to oneself personally if one attempted to migrate to Europe by sea/land	1 845	0.08	1 077	0.09	768	0.08
Thinks that abandonment along the journey could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 019	0.11	1 762	0.10	1 257	0.13
Thinks that imprisonment could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 019	0.31	1 762	0.27	1 257	0.36
Thinks that forced labour could occur to oneself personally if one attempted to migrate to Europe by sea/land	3 019	0.20	1 762	0.16	1 257	0.26
Is aware of all the risks one can face during an irregular migration journey	3 019	0.40	1 762	0.42	1 257	0.37

<sup>a</sup> This includes both treatment and control groups.

### 8.3.1.3. Attitude and Intention before the intervention in Senegal

Table 16 shows the descriptions of attitude and intention outcomes at baseline. In Senegal, about 8 per cent of the respondents have the intention to migrate irregularly before the Migrants as Messengers Phase 2 intervention, and only 5 per cent have contacted a facilitator for an irregular migration initiative. In other words, about 8 per cent of respondents aged 17 to 30 who are considering leaving the country and living in another would do so without getting legal documents. This shows a clear intention to migrate irregularly. In addition, among these people, 5 per cent had even taken a step already by contacting a smuggler or someone not reluctant to engage in smuggling.

**Table 16. Description of indicators of attitude and intention before the intervention in Senegal**

Outcomes (Senegal)	N	All <sup>a</sup>	N	Control	N	Treatment
Contacted a facilitator	350	0.05	192	0.05	158	0.05
Intends to migrate irregularly	1 845	0.08	1 077	0.09	768	0.08

<sup>a</sup> This includes both treatment and control groups.

### 8.3.2. The effects of the intervention in Senegal

As illustrated in Figure 14, almost all indicators for knowledge and perceptions were significantly affected by the intervention in Senegal for compliers. There was also no unintended effect in Senegal.

The effects of the intervention in Senegal on knowledge range from 21 percentage points (the knowledge of personal network as source to find information on local opportunities) to 41 percentage points (the index of knowledge of irregular migration issues and local opportunities). It is worth mentioning that there is a high level of significance of these results in Senegal.

The same situation can be observed for the indicators of perceptions. Almost all the indicators are significantly affected, the effect size ranging from 7.2 percentage points (the perception of sending back remittances after an irregular migration journey) to 34 percentage points (the perception that physical injury or illness could occur during an irregular migration journey). Only the index of risk awareness is strangely negatively affected. Since this is a created index, this situation may be related to the structure of the data.

Eventually, one can notice a decrease, even if not significant, in the intention to migrate irregularly due to the intervention in the region of Thiès in Senegal.

Figure 14. The estimated effects of the intervention on compliers in Senegal



Source: Authors' estimations.

Overall, the results in Senegal show a clear effect of the intervention on the indicators of knowledge and perceptions. This was expected from the theory of change.

### 8.3.3. Gender and residential area effects in Senegal

The subgroup effect analysis revealed that the project has different impacts for male and female for three knowledge indicators in Senegal. The project effect is similar for female and male for the intention to migrate irregularly to Europe from Senegal.

Most of the project impacts are similar for male and female for the indicators of perceptions in Senegal. Only for two indicators did the effects have changed according to the gender. The effect changed for the perception of finding information about local opportunities in Senegal and the perception of the risks that one can face during an irregular migration journey. For both indicators, the project effect is significant only for female and not for male.

The campaign effects on the indicators of knowledge in Senegal change for two knowledge outcomes, according to the respondent's residential area. The project effect is significant for the knowledge of online tools as source to find information about local job opportunities only in rural areas, and for the knowledge of personal network as source to find information about local job opportunities only in urban areas. The project's effect on the intention to migrate irregularly is similar for the respondents living in urban and rural areas.

Out of 10 indicators of perceptions, the project effect changes for 6 outcomes. The project effect is significant only in urban areas for the perception of thinking that one can send back remittances in less than one year after entering Europe, for a person who entered without legal documents. For the perception of finding information about local opportunities in Senegal and the perception of the risk to be physically injured, to be ill or to die during an irregular migration journey, the project impact is only significant in rural areas. The campaign impact on the perception of thinking that abandonment along the journey could occur to oneself personally if one attempted to migrate to Europe by sea/land and on the perception of thinking that imprisonment could occur to oneself personally if one attempted to migrate to Europe by sea/land is significant only in rural areas. In other words, the project has no effect on these two outcomes in urban areas.

## 8.4. Robustness checks

The results are robust against different specifications (see the tables in Annex 6 for further details). As an alternative specification to our main estimation, the results are reported for (a) single difference estimation with covariates based on the full sample and (b) difference-in-difference estimation based on the full sample with covariates. The results are qualitatively similar across the specifications. We additionally computed the intention-to-treat effect. The main trends are kept.





# 9

## PRACTICAL LESSONS LEARNED AND LIMITATIONS



## 9.1. Lessons learned

This large multi-country impact evaluation study conducted by IOM's Global Migration Data Analysis Centre in West Africa provides a large-scale learning opportunity, not only about the effectiveness of implemented projects, but also about conducting robust evaluations in real-world settings.

In this section, we reflect on some key lessons from the perspective of the evaluation team:

- (a) **Producing a detailed description of planned project activities and the implementation is vital for evaluation.** The implementation team in each country developed a detailed plan before carrying out the activities. This allowed the evaluation team to understand the respective theory of change, consider data collection and measurement issues, and prepare plans to overcome potential methodological challenges resulting from how the project is implemented. This turned out to be an excellent guideline for both study and implementation teams.
- (b) **Implementation teams should be trained on the whole impact evaluation process, emphasizing the roles and responsibilities of each party.** This is an important lesson learned from this study. At many steps of the implementation, there were misunderstandings of the impact evaluation process due mainly to lack of knowledge of the process. From this, we learned the need to train every stakeholder on the impact evaluation process.
- (c) **Developing an agreed-upon action plan for both intervention and research activities in each country, supervised by the research team, could effectively facilitate both the implementation of interventions and activities.** Data collection is conditional on where, when and how project activities take place. Yet data collection is a resource-intensive process that requires planning ahead. This is why close coordination between the implementation team and the evaluation team is crucial.
- (d) **“Representativeness” versus key target audiences.** The evaluation team decided early on that a probability sample was needed to go beyond previous evaluations, which were narrowly designed to assess the effects of potential irregular migrants in specific locations with high emigration potential. This decision was taken to boost the external validity of the results, allow more subgroup analysis, and understand how information is shared in broader communities, not just among those who are actively considering migrating. This strategy was risky because it requires incentivizing and mobilizing study participants to join in the planned activities on the ground. This has been proven difficult. As a result, the share of people in the study who participated in the Migrants as Messengers Phase 2 activities is low. This made it important to reflect on the pros and cons of the representativeness approach before opting for it.
- (e) **Conducting a simple listing in order to get more accurate data is a good practice.** The survey frameworks received from the national statistical offices were outdated. The accuracy of the population figures was not guaranteed. When the simple listing was done, it helped in updating the figures and collecting GPS data, which in turn helped during the baseline and end-line data collections. In some case and depending on the time and resources available, this may be combined with satellite imagery, which was not tried in this study.
- (f) **The research timeline should not be aligned with the project timeline.** The research activities include those carried out during the project implementation (baseline and end-line data collection) as well as activities after the project implementation, including data cleaning, merging, analysis, different ways of exploring the data, and lastly producing a report and articles for peer-reviewed journals. As a result, project planners should allow for more time for the evaluation team after activities have been concluded.

## 9.2. Methodological limitations and challenges

- (a) **Difficulties to reconcile the implementation of the project with the implementation of some features of the research.** The interventions evaluated were supposed to be as close as possible to the way they should be implemented in a real-world setting.<sup>53</sup> However, in order to ensure a rigorous impact assessment, some requirements were still needed. These requirements engendered some challenges for the implementation of the intervention. Among others, they are as follows:

<sup>53</sup> That is, without any protocol linked to a research.

- (i) **Avoiding contamination.** This did not allow use of digital or media engagement, which was a key component of the Migrants as Messengers approach. This should further be explored in future research. The orientation of the research could be on testing and combining both approaches (on the ground and online) and taking them separately to test their effects on relevant outcomes' indicators.
  - (ii) **Organizing awareness-raising events in each location assigned to treatment.** Some enumeration areas were hard to reach, leading to challenges in conducting activities there. It was also sometimes difficult to find a relevant public place for the activities in each treatment area. This challenge could have been overcome by using random assignment to promotion instead of random assignment to treatment. The random assignment to promotion has the advantage of allowing for the organization of public activities wherever relevant, not in each enumeration area assigned to the treatment group. The challenge then will be to make sure that participation in the event from areas assigned to treatment is the largest possible and limit the participation from locations assigned to control.
  - (iii) **Uniformity of the intervention in all the areas.** Because the intervention should be the same in all areas, uniformity was needed. However, this requirement made it difficult to plan and target the intervention for the audience and/or adapt as needed in a social and behaviour change communication context. For example, the implementation team decided to carry out additional activities in some hand-picked communities rather than all treatment communities, but they did not record which ones.
- (b) **No fully truthful and non-declarative information on actual exposure to the intervention.** There was no strong mechanism to observe and collect data on the actual attendance to the activities and other exposure data from the surveyed people. It would have been great to have the possibility to measure the actual attendance of people interviewed at the baseline. Unfortunately, this was not possible. Only declarative data were collected and presented in previous sections. It is, however, worth mentioning that it is almost impossible to collect actual participation data of the target people, apart from their own declaration in such public events.
  - (c) **Challenges in properly designing the cluster randomized controlled trial (cRCT) approach.** The lack of such previous approaches to impact evaluation in the migration sector and the lack of available migration statistics did not allow us to use accurate parameters to design the cRCT. For instance, the sample sizes should be calculated using indicators like “the percentage of people with irregular migration issues knowledge” or “the proportion of people knowing most risks associated with irregular migration” and the like. Such indicators were unavailable. The sample size was calculated using general indicators like “proportion of young people aged 17 to 30”. This weakened the quality of the sample size. Another parameter of interest, which is the intracluster correlation coefficient, was not available for very similar studies. It was borrowed from a previous study in the migration sector<sup>54</sup> but with an intervention not very close to those of this study.
  - (d) **The COVID-19 pandemic impacted the timelines of the study.** From the design to the implementation, the study took more time because of uncertainties related to the COVID-19 pandemic. Activities were postponed or downsized to comply with COVID-19 restrictions, and all this has had an impact on the timeline and the quality of the whole process.
  - (e) **The challenge of time allocation and technical and human resources for testing of the intervention for a successful implementation.** It was noted in this study that at some points, the intervention seemed not to be adapted to the context and/or the audience. The extremely low attendance rate in Lagos, for instance, even when the intervention has been tested there, raises questions. This means that the testing was somehow weak, as it should have allowed identifying the issues before the intervention. Even if the attendance rates were higher in the other countries, they all remain less than one should expect. Therefore, fully dedicating time, technical expertise and resources to testing of the intervention is probably a key element to consider for future intervention

<sup>54</sup> The intracluster correlation coefficient used to compute the sample size came from Bah et al. (2022).



# 10

## CONCLUSION AND RECOMMENDATIONS



## 10.1. Conclusion

IOM is engaged in awareness-raising interventions with the aim of increasing the share of migrants who make informed decisions about migration and avoid risks associated with irregular migration. The Migrants as Messengers (MaM) project is one of IOM's largest awareness-raising campaigns. After its first phase (November 2017 to March 2019), which introduced the first ever randomized controlled trials to assess the causal effects of some components of the project, a second phase was developed to extend its scope and introduced lessons learned from Phase 1. Migrants as Messengers Phase 2 (MaM-2) (2019–2022) aimed at empowering young people to make informed migration-related decisions in seven West African countries through five key pillars: capacity-building, community engagement, content production, media and digital engagement, and impact evaluation. The latter pillar is thought to support important efforts to improve the Organization's evidence-based programming and justified the impact evaluation that the current report is about.

More and more studies since 2015 attempt to assess the actual causal effects of awareness-raising and information campaigns on irregular migration in Africa. Leveraging the findings and evidence gaps identified in Migrants as Messengers Phase 1 (MaM-1), this study tried to further investigate the effects of awareness-raising campaigns in four of the seven West African countries covered by MaM-2, namely the Gambia, Guinea, Nigeria and Senegal. The investigation concerned four outcomes: knowledge, perceptions, attitudes and intentions. Four interventions, each of them specific but all community-engagement types, have been conducted. The main features of the interventions assessed are as follows:

- (a) Activities have been led by MaM Volunteers.
- (b) Messaging and content were developed and/or co-developed by Volunteers.
- (c) All the activities were designed for community engagement (social theatre, street art painting, *Bantabas*, community talks, screenings).
- (d) Little or no IOM branding.

To assess the causal effects of the campaign, a cluster randomized controlled trial approach was applied to provide robust scientific evidence. In each country, two criteria were used to select an administrative subdivision to serve as study area. A random sampling method was used to select 79 to 93 representative samples of enumeration areas from each administrative subdivision covered to be part of the study. The administrative subdivisions covered were the Upper River Region in the Gambia, the prefecture of Kankan in Guinea, the local government areas of Alimosho and Ojo in the State of Lagos in Nigeria, and the region of Thiès in Senegal.

Two waves of data collection took place in the 333 enumeration areas from 13,968 individuals aged 17 to 30. The two data-collection exercises were separated by the interventions in each country: one core intervention in each enumeration area and follow-up interventions in selected enumeration areas. The data collected aimed at detecting any causal effects of the interventions on selected indicators of knowledge, perceptions, attitudes and intentions. Due to the very low attendance and compliance rate in Nigeria, it was not possible to provide an estimation of the intervention effects in the country.

The following findings can be highlighted for the other countries:

- (a) The intervention in the Gambia was effective in improving perceptions of risks associated with irregular migration. However, reversed effects were noted on knowledge of sources to find information on jobs and other local opportunities. The intervention seemed to have decreased knowledge. A possible explanation of this situation was provided previously.
- (b) The intervention in Guinea has been more effective on knowledge and perceptions with few unintended effects on knowledge. The causal effect size in Guinea ranged (in absolute values) from 0.9 percentage point to 5 percentage points for the indicators of knowledge and from 0.2 percentage point to 32 percentage points for those of perceptions. It is worth noting that reversed effects were observed for some knowledge indicators (decrease by 35 percentage points of the knowledge of government offices as source to find information about local opportunities and a 15-percentage-point decrease in the perception that one can be abandoned along the road on an irregular migration journey).

- (c) The intervention in Senegal has proven causal effects on perceptions and knowledge. For the indicators of knowledge, the effect size ranged from 21 percentage points (the knowledge of personal network as source to find information on local opportunities) to 41 percentage points (the index of knowledge of irregular migration issues and local opportunities). As for the perceptions, the effect size ranged from 7.2 percentage points (the perception of sending back remittances after an irregular migration journey) to 34 percentage points (the perception that physical injury or illness could occur during the irregular migration journey).

Overall, the main results paint a highly mixed picture. Effects vary substantially by country and intended outcome. This highlights the difficulty of scaling up proven interventions geographically and letting the implementation occur naturally without extensive involvement of the evaluation team. More research is needed to understand under which circumstances MaM-2 activities achieve their intended objectives and for which particular target audiences.

Based on the above findings, the assumptions made previously can be responded to as follows:

*Hypothesis 1. Information campaigns are more effective in rural than in urban areas.*

The effects change for more than half of the indicators for knowledge as well as for perceptions in the three countries where the data allowed this analysis. However, the effects are mixed. For some indicators, the campaign was more effective in rural areas, and for others, in urban areas. It is unclear what the drivers of the efficiency are in urban or rural areas. Further analysis and investigation may be needed to clearly respond to this hypothesis.

*Hypothesis 2. The effect of the campaign is not necessarily better when information about local opportunities is combined with the risks associated with irregular migration journeys.*

Adding information about local opportunities did not have a decisive add-in for the effectiveness of the interventions. In some case, like in the Gambia, it tended to have weakened the effects of the interventions, since an effect was noted but the reverse of what was expected.

Eventually, further analyses are planned to be conducted based on the collected data. All data are planned to be released publicly after further cleaning. More research is needed to understand who participates in awareness-raising activities, which participants are most positively affected by activities, and in which locations activities work best.

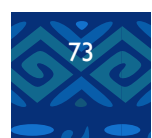
## 10.2. Recommendations

- (a) **Recommendation 1: Consider using randomized assignment to promotion instead of randomized assignment to treatment for a peer-to-peer, community-engagement approach like MaM-2.** Conducting a randomized controlled trial-like evaluation in awareness-raising campaigns presents many challenges that this study tried to address by using a cluster randomized controlled trial (cRCT) approach. However, by assigning enumeration areas to treatment and, as consequence, “obliging” the implementation team to conduct activities in each enumeration area, many challenges preventing the interventions to get closer to a real-world setting have been noted. For most of these challenges (see above), the random assignment to promotion (instead of random assignment to treatment) could be more helpful in addressing them. In such a setting, the activity could take place in any relevant place, not necessarily inside the enumeration areas of the treatment group, and any promotional material may be used. However, a closer promotion – consisting for instance in door-to-door invitation, personalized Short Message Service or any specific messaging, stipends for transport, or any other specific motivation – must be done to make sure targeted people in enumeration areas randomly assigned to promotion get guaranteed access to the promotional materials and actually participate in the event.
- (b) **Recommendation 2: Improve the MaM approach based on the findings of this study.** The results of this study confirmed that the MaM approach is very relevant. This is illustrated by the fact that, depending on the country, 52 to 79 per cent of the population trust in returnees as a good source of information, far higher than the trust proportions for the government and other institutions. The approach worked well in Senegal, had moderately mixed effects in Guinea and had highly mixed effects in the Gambia. Evidence was also provided in this study that the results from MaM-1 are confirmed, while some non-proven results of MaM-1 (for instance, the effects on



perceptions) were provided some evidence. The mixed results for some indicators, however, tended to prove that improvement is needed to the approach as well as its evaluation. This is key to future projects and programmes using the MaM approach. It is good to take a deep dive into the results and see in which aspect further improvements are needed.

- (c) **Recommendation 3: Proceed to a rigorous segmentation of the target people and define a set of sub-activities adapted to each segment in the package for intervention activities.** Given the issues with attendance, it is likely that some target people did not have an interest in these activities. The diversity and variation in activities and how they were implemented severely complicated the evaluation, and this prevented a deeper understanding of what works. Segmentation based on the needs assessment of the target people and testing of the activities should help address the attendance issues and improve the quality of the intervention as well as its evaluation.
- (d) **Recommendation 4: Mainstream gender in the research setting.** This research did not address in a systematic manner the gender aspects, while the project mainstreamed gender. This weakened the gender analysis in the results section. Studies such as this should address gender issues in a systematic manner, starting from the design of the research until the dissemination. This can be done by specifically considering gender analysis during the design, gender-sensitive questionnaire development, gender-sensitive questionnaire administration, and gender-sensitive analysis and reporting.
- (e) **Recommendation 5: Continue developing such impact evaluations and associated research activities to better measure awareness-raising interventions' effects in the migration sector and understand the drivers of success and failure to achieve the desired goals.** This cRCT is among the first ever cRCTs used to measure the causal effects of an awareness-raising campaign performing community-engagement activities in IOM in a close-to-real-world setting. The study provides a lot of evidence in terms of methodology and operational implementation challenges, as well as new insights in data collection and the impact of awareness-raising campaigns in the migration sector. It provides interesting insights into what works, what does not and what to improve to get better results, establishing causal effects. However, as mentioned in previous sections, there are still a lot of unclear aspects that need further investigations in order to improve knowledge of awareness-raising interventions in the migration sector. This advocates further investigations in order to respond to some of the still open questions mentioned above.







# 11

ANNEXES



## 11.1. Annex 1. Why is the cluster randomized controlled trials approach preferred in this evaluation?

The planned study aimed at establishing a causal relationship between the peer-to-peer awareness-raising intervention led by return migrants and the knowledge, perceptions, intentions and behaviours related to irregular migration among young people in communities with high emigration rates and low exposure to awareness-raising campaigns.

To achieve that goal, the study was designed to use experimental design at the early stage of the inception of the project. This design involves randomizing specific units of the study to two groups: one that receives the innovative approach (which in this case is the peer-to-peer awareness-raising intervention led by return migrants), called the “intervention group”; and the second group (which is also part of the study but does not receive any intervention in our case),<sup>55</sup> called the “control group”. The option to use a placebo (that is, a “fake” or “neutral intervention”) was possible. However, using the placebo model means funding another set of activities, which leads to a higher cost and can raise ethical questions on the use of funds allocated for awareness-raising. Randomization ensures that the groups formed are equivalent in all known and unknown variables except chance (Torgerson and Torgerson, 2008).

When randomizing, at least two options are available:

- (a) The first is to randomly assign the observation unit to treatment or control. In this case, the randomization unit is the same as the study unit. This is the randomized controlled trial (RCT).
- (b) The second is to randomly assign a group of observation unit to treatment or control. In this case, the randomization unit is a group of observation units. This is the cluster randomized controlled trial (cRCT).

It is the distinction between units of randomization and units of observation that distinguishes cluster randomized trials from the more usual randomized trials, with statistical and practical consequences (Eldridge and Kerry, 2012). Within a cluster trial, there are at least two different data levels: cluster and unit of observation (Bolzern et al., 2019).

Based on the above-mentioned theoretical considerations and the types of interventions expected, an option was made for a series of cRCTs to detect the effects of the described interventions. There are two main reasons why cRCTs are the best approach in this study context:

- (a) First, the described intervention operates at the group level. The audience participates in treatment activities in groups. Invitations to participate in the Migrants as Messengers Phase 2 (MaM-2) activities are disseminated widely in each individual community.
- (b) Second, there are practical difficulties in randomizing at the individual level. Individual randomization increases the risk of bias. Given that interventions take place in small communities with strong social ties, control group members might attend treatment events (i.e. “contamination”) or treatment members might tell control group members about the events (“spillover”).

This is coherent with the recommendations in the literature. Bolzern et al. (2019) suggest that the cRCTs are “commonly used in educational interventions, where a school or class is the unit of allocation, and evaluation of activities, such as health promotion, when doctor might be the unit of allocation, or where there is a risk of the control group being contaminated by the intervention (that is the control participants unintentionally receiving the intervention)”.

After deciding the approach as cRCT, the question of what to consider as “cluster” had to be answered. The choice fell on the smallest geographical or administrative level as the randomization unit. In the context of West Africa, this smaller geographical area (cluster) that the study opted for was the enumeration area. A commonly accepted definition of the enumeration area is that it is the geographic area canvassed by one census representative. An enumeration area is composed of one or more adjacent blocks<sup>56</sup> (villages, neighbourhoods, or part of villages or neighbourhoods in the West African context).

<sup>55</sup> In some variants, this group could receive a “placebo” intervention – that is, an intervention that has nothing to deal with the one of interest.

<sup>56</sup> More information on enumeration areas is available [here](#) (accessed 18 July 2022).

This impact evaluation design bears a similarity with the standard “encouragement design” (Gertler et al., 2016:92–104; Gerber and Green, 2012:131–161) with expected one-sided non-compliance. This means that enumeration areas will be randomly allocated to either receive the treatment or not. In treatment enumeration areas, participation in the event was promoted at the enumeration area level, and participants that were asked during the impact evaluation baseline survey were further encouraged to attend the event through text message reminders or other context-adapted encouragement methods. However, as expected, some study participants in treatment enumeration areas did not attend the event (non-compliance). Compliance is then one-sided due to the cRCT design. This means that study participants (those surveyed for the impact evaluation baseline study) in control villages (no MaM-2 events) were not supposed to have participated in treatment events, given that they were not aware of the event and geographically separated from treatment enumeration areas. Unfortunately, this would have not prevented them from participating.

## 11.2. Annex 2. Details about sample-size calculation procedures

### 11.2.1. General considerations

In general, sample-size requirements for a cRCT depend upon many factors (Rutterford et al., 2015). Several characteristics of our studies have been considered in the calculation of the sample sizes.

- (a) First, all our outcomes are binary outcomes. The expected effect size has been measured as difference in percentages, i.e. expected difference in proportions in relation to an outcome in control and treatment.
- (b) Second, our clusters had *variable* sizes. We account for this variability in cluster sizes, following the recommendation in Rutterford et al. (2015).<sup>57</sup>
- (c) Third, we adjusted the sample size to account for the intracluster correlation coefficient (ICC). We calculate the design effect (DE) and the sample size based on the ICC values that were used in similar studies. Regarding the design and country of intervention, we opted to finally use an ICC of 0.07, suggested by Bah et al. (2022).
- (d) Fourth, we further adjusted the sample size to account for expected attrition by setting a minimum number of target households by cluster. In our context, participants can move to other areas or migrate to other countries during the course of the study. We set a maximum of 30 per cent attrition rate.

Based on the above elements, we estimate a total gross sample size at baseline in each intervention country. The estimate is based on the sample-size calculation procedure provided below.

The following required parameters were assumed:

- (a) Significance level = 0.05.
- (b) Power = 80 per cent, i.e. 20 per cent probability of Type II error.
- (c) Effect size = 10 per cent, equivalent of a 10-percentage-point difference in a binary outcome (i.e. 43.7% irregular migration intention in control versus 33.7% irregular migration intention in treatment) based on previous studies (Bia-Zafinikamia et al., 2020; Dunsch et al., 2019; Tjaden and Dunsch, 2021).
- (d) Attrition of survey respondents in end-line survey = 30 per cent.

### 11.2.2. Sample-size calculation steps

For the calculation of our sample sizes, we use a five-step approach leveraging the findings of van Breukelen et al. (2008), Candel et al. (2010) and Rutterford et al. (2015).

<sup>57</sup> Rutterford et al. (2015) recommends to account for cluster size “when cluster size variability is large, i.e. the coefficient of variation of cluster size, defined as the ratio of the standard deviation of cluster size  $S_n$  to mean cluster size  $n$ , is greater than 0.23”.

Step1: Calculation of the sample size in a normal RCT. The following is used for this purpose. It takes into account the type of our outcomes<sup>58</sup> (Campbell and Walters, 2014).

$$SS_i = \frac{(z_{1-\alpha/2} + z_{1-\beta})^2 [\pi_T(1 - \pi_T) + \pi_C(1 - \pi_C)]}{(\pi_T - \pi_C)^2} \quad (1)$$

In the equation (1):

$\alpha$  is the significance level.

$\beta$  is the probability of Type II error.

$\pi_T$  is the proportion of the outcome in the treatment group.

$\pi_C$  is the proportion of the outcome in the control group.

$Z_x$  is the Z-score of the  $x$ th quantile of the standard normal distribution.

Step 2: We calculate the design effect to obtain the total sample size with the assumption of equal cluster size.

$$DE = 1 + (\bar{m} - 1)\rho \quad (2)$$

In the equation (2):

$DE$  is the design effect assuming equal cluster size.

$\bar{m}$  is the average cluster size.

$\rho$  is the intracluster correlation coefficient.

Step 3: Calculate the sample size (number of individuals) assuming equal cluster size.

$$SS_c = (1) \times (2)$$

Step 4: We calculate the design effect accounting for variability in cluster size because of its wide applicability (Rutterford et al., 2015).

$$DE_c = \frac{1}{1 - CV^2 \frac{\bar{m}}{\bar{m} + \frac{1-\rho}{\rho}}} \left[ 1 - \frac{\bar{m}}{\bar{m} + \frac{1-\rho}{\rho}} \right] \quad (3)$$

In the equation (3):

$CV$  is the coefficient of variation of cluster size.

$DE_c$  is the design effect accounting for variability in cluster sizes.

<sup>58</sup> Binary outcome.

Step 5: Finally, we obtain the number of clusters (accounting for variability in cluster sizes) by using the following equation:

$$n_c = \frac{SS_c}{m} \times DE_c \quad (4)$$

### 11.2.3. Estimation of treatment effects

Given that the main interest is in the effect of the information campaigns conducted during MaM-2 on potential migrants' knowledge, intentions, perceptions and attitudes, and focused on the effects on individuals, the assumption is that in the absence of the intervention, the population proportion for each indicator outcome is the same in the treatment and control groups.

The main estimate in this study was the local average treatment effect analysis, by using the following specification:

$$Y_{ict} = \beta_0 + \beta_{11}T_c + \beta_{12}Z + \beta_2X_{ict-1} + \beta_3Y_{ict-1} + \theta + \varepsilon_{ict} \quad (5)$$

In the equation (5):

- (a)  $Y_{ict}$  represents the outcome indicator.
- (b)  $T_c$  is a dummy equal to 1 for individuals in the treatment enumeration areas and 0 for individuals in the control enumeration areas.
- (c)  $Z$  is a dummy equal to 1 for individuals actually exposed to treatment and 0 for individuals not exposed to treatment. It is used as instrument in this equation.
- (d)  $X_{ict-1}$  is a set of control variables measured at baseline. These variables may have effects on the outcome. They were controlled for in the regressions.
- (e)  $Y_{ict-1}$  represents the value of the outcome at baseline. Putting this in the model allowed for the adjustment of each outcome for baseline value.
- (f)  $\theta$  is the strata fixed effect since the random assignment was stratified by residential area (urban versus rural).
- (g)  $\varepsilon_{ict}$  is the errors term. This was clustered at the enumeration area level, since the random assignment was performed at that level.

In addition, the study explored differential impact to see if the project effects vary by gender and residential area.

The variables used to control for are the following:

- (a) Age (in years)
- (b) Female (0 = Male, 1 = Female)
- (c) Family status (1 = Married, 0 = Otherwise)
- (d) Household size
- (e) Educational attainment (0 = Primary education or less, 1 = Secondary education or more)
- (f) Contacts with people abroad
- (g) Any work in the last 30 days (Employment status)
- (h) Able to save every month
- (i) Receiving remittances
- (j) Knowledge of a returnee who was an irregular migrant
- (k) Average monthly Income
- (l) Main source of income
- (m) Ethnic group



### 11.3. Annex 3. Groups balance check

This study has previously mentioned using a cRCT approach. The unit of treatment assignment was the enumeration area. Randomization ensures that the groups formed are equivalent in all known and unknown variables *except chance* (Bolzern et al., 2019). Random allocation is supposed to remove selection bias, which occurs when the investigators (either subconsciously or deliberately) influence the allocation to treatment. If selection bias is removed, any differences in outcomes can be attributed to the treatment. For the random assignment in this study, a computer programme was developed and included a control for the location (urban versus rural) of the enumeration areas. The baseline data were used for that purpose. No other condition interfered in the allocation. Thus, quoting Fives et al. (2013), one can consider that the random allocation is successful given “the generation of the random allocation sequence and the steps taken to ensure its concealment”. Therefore, “any differences in outcomes between study conditions after participants have received their respective treatments can be attributed to the differences between these treatments and not other confounding variables. ... It is the case that random allocation, if successful, removes selection bias. However, it does not follow that random allocation should ensure baseline equality” (ibid.).

Despite all these considerations, the balance of the outcomes’ indicators at baseline was checked in order to see if the analysis methods used were the most appropriate according to the literature. It appears that the outcomes were highly unbalanced at baseline in Senegal and Nigeria. The summary of the balance check is given in the table below. This situation will influence the analysis method as well.

Table 17. Balance check per country for each indicator of outcome at baseline

Outcome	Indicator	Balance status			
		The Gambia	Guinea	Nigeria	Senegal
Attitude	Contacted a facilitator				
Intention	Intends to migrate irregularly				
Knowledge	Knows countries to transit through during irregular migration from one’s country		Unbalanced		Unbalanced
Knowledge	Knows <i>government offices</i> as source to find information about local job opportunities		Unbalanced		Unbalanced
Knowledge	Knows <i>NGOs</i> as source to find information about local job opportunities				Unbalanced
Knowledge	Knows <i>online tools</i> as source to find information about local job opportunities	Unbalanced	Unbalanced		Unbalanced
Knowledge	Knows <i>personal network</i> as source to find information about local job opportunities		Unbalanced		Unbalanced
Knowledge	Index of knowledge of irregular migration issues				Unbalanced
Perception	Thinks that one can send back remittances in less than one year after entering Europe, for a person who entered without legal documents		Unbalanced		
Perception	Perceives it easy to find information about local opportunities in one’s country				
Perception	<i>Thinks that physical injury or illness</i> could occur to oneself personally if one attempted to migrate to Europe by sea/land		Unbalanced		Unbalanced
Perception	<i>Thinks that death</i> could occur to oneself personally if one attempted to migrate to Europe by sea/land		Unbalanced	Unbalanced	Unbalanced

Outcome	Indicator	Balance status			
		The Gambia	Guinea	Nigeria	Senegal
Perception	Thinks that gender-based violence could occur to oneself personally if one attempted to migrate to Europe by sea/land	Unbalanced	Unbalanced	Unbalanced	Unbalanced
Perception	Thinks that deprivation of liberty could occur to oneself personally if one attempted to migrate to Europe by sea/land	Unbalanced		Unbalanced	Unbalanced
Perception	Thinks that abandonment along the journey could occur to oneself personally if one attempted to migrate to Europe by sea/land		Unbalanced	Unbalanced	Unbalanced
Perception	Thinks that imprisonment could occur to oneself personally if one attempted to migrate to Europe by sea/land				Unbalanced
Perception	Thinks that forced labour could occur to oneself personally if one attempted to migrate to Europe by sea/land		Unbalanced		Unbalanced
Perception	Is aware of all the risks one can face during an irregular migration journey				

## 11.4. Annex 4. Details about the creation of indicators

### 11.4.1. Intention attitude

The intention to irregularly migrate is defined as having the desire and plan to migrate without having the legal or authorized documents to do so. The table below gives details on the way the indicator “intention to migrate irregularly” was constructed from the questions in the questionnaire.

Table 18. Details about the creation of the indicators of attitude and intention

Variable name in the data set	Type	Question associated in the questionnaires	Transformation
irreg	Categorical	If you cannot get a visa to migrate, will you still try to do it otherwise?	<p>The question was a multiple-response question with the following options:</p> <ul style="list-style-type: none"> <li>0 No</li> <li>1 Yes</li> <li>2 Maybe</li> <li>3 I do not know</li> <li>4 Prefer not to answer</li> </ul> <p>The question came after another question asking whether the respondent is considering leaving the country to take up residence in another country in the coming years.</p> <p>The variable was transformed to dummy as follows:</p> <p>(a) If the response is “Yes”, “Maybe”, “I do not know” or “Prefer not to answer”, the recoded dummy variable gets the value 1: “Intend to migrate irregularly”. Otherwise the value of the recoded variable is 0: “Do not intend to migrate irregularly”.</p>

Variable name in the data set	Type	Question associated in the questionnaires	Transformation
prep_actions_9	Categorical	What kinds of preparations have you made? Response: Contacted a "facilitator".	This question came from a multiple-choice question asking whether the respondent made concrete preparations to leave the country. The question came from two other previous questions, which are as follows: (a) Are you considering leaving the country to go to live in another country? (b) Have you made concrete plans to move to this country within the next year?  The response "contacted a facilitator" was one of the options. It was dichotomized in the data set with the value "1" when selected by the respondent and "0" if not.

### 11.4.2. Knowledge

Knowledge is defined in this study as awareness or familiarity gained by experience of a fact or situation.

#### 11.4.2.1. Knowledge of transit countries

Table 19. Details about the creation of the indicators of knowledge of transit countries

Variable name in the data set	Type	Question associated in the questionnaires	Transformation
transit_countries	Binary	D.6.4. What are the transit countries to get you to Spain or Italy?	This was a multiple-choice question in the questionnaire, with the options consisting of all the countries in the world. The enumerators tick the country when it is listed by the respondent. It was rendered as binary in the data set as follows: 1: Knows transit countries, if any of the following countries are listed. 0: "Does not know" otherwise.  <b>The Gambia:</b> Burkina Faso, Mauritania, Morocco, the Niger, Senegal, Tunisia  <b>Guinea:</b> Algeria, Libya, Mali, Morocco, the Niger  <b>Nigeria:</b> Algeria, Burkina Faso, Chad, Libya, Mali, Morocco, the Niger  <b>Senegal:</b> Algeria, Burkina Faso, Libya, Mali, Mauritania, Morocco, the Niger



### 11.4.2.2. Knowledge of the sources of local opportunities

Table 20. Details about the creation of the indicators of knowledge of local opportunities

Variable name in the data set	Type	Question associated in the questionnaires	Transformation
lportunity_info	Binary	Where can you find information about local job opportunities?	<p>This was a multiple-choice question in the questionnaire with the following options:</p> <ol style="list-style-type: none"> <li>1 Local government offices</li> <li>2 Local NGOs</li> <li>3 Online sources</li> <li>4 Personal networks</li> <li>5 Other</li> <li>6 I do not know</li> </ol> <p>The response was not prompted.</p> <p>In the data set, each of these options came as a binary variable taking the value “1” if the response was listed by the respondent and “0” if not.</p> <p>The first four were included in the analysis as single knowledge variables for local opportunities.</p>

### 11.4.2.3. Index of knowledge of the risks of irregular migration and local opportunities

Table 21. Details about the creation of the indicators of index of knowledge of the risks of irregular migration and local opportunities

Variable name in the data set	Type	Question associated in the questionnaires	Transformation
transit_countries	Binary	D.6.4. What are the transit countries to get you to Spain or Italy?	<p>This was a multiple-choice question in the questionnaire, with the options consisting of all the countries in the world. The enumerators tick the country when it is listed by the respondent. It was rendered as binary in the data set as follows:</p> <p>1: Knows transit countries, if any of the following countries are listed. 0: “Does not know” otherwise.</p> <p><b>The Gambia:</b> Burkina Faso, Mauritania, Morocco, the Niger, Senegal, Tunisia</p> <p><b>Guinea:</b> Algeria, Libya, Mali, Morocco, the Niger</p> <p><b>Nigeria:</b> Algeria, Burkina Faso, Chad, Libya, Mali, Morocco, the Niger</p> <p><b>Senegal:</b> Algeria, Burkina Faso, Libya, Mali, Mauritania, Morocco, the Niger</p>
cost_Europe	Binary	D.6.6.1. Do you have an idea of how much (in local currency) it costs for someone to migrate irregularly to Europe?	<p>These two questions were combined in order to get a binary variable related to knowledge of the cost to travel irregularly to Europe:</p> <p>1: “Knows”: cost_Europe == “Yes” and amount_Europe &gt;= “Minimum amount”. 0: “Does not know” otherwise.</p>
amount_Europe	Integer	D.6.6.1.1. If Yes, how much do you think it would cost for a person to reach the following destinations by sea and/or land?	<p>Minimum amounts declared per country:</p> <p><b>The Gambia:</b> 25,000 GMD <b>Guinea:</b> 15,000,000 GNF <b>Nigeria:</b> 500,000 NGN <b>Senegal:</b> 300,000 XOF</p>

Variable name in the data set	Type	Question associated in the questionnaires	Transformation
localopportunities	Binary	D.6.9. Do you know of any opportunities in your country or in another country in the West African subregion to work or study, which could help improve your living conditions?	These two questions were combined in order to get a binary variable related to knowledge of local opportunities. The place to find information about local job opportunities was a multiple-response variable, and all the responses except “I do not know” were good responses. The new binary variable is as follows:  1: localopportunities == “Yes” and at least two options of loppportunity_info is “Yes” excluding “I do not know”. 0: Otherwise.
loppportunity_info	Binary	D.6.10. Where can you find information about local job opportunities?	
mig_risks	Binary	D.7.4. Which risks can occur to people who leave the country to cross the sea to reach the Spanish islands/Canaries by boat/canoe?	This is a multiple-choice question in the questionnaire. All the response options were transformed into a binary variable in the data set. The number of binary variables is the number of response options. Since all the options are actual risks, the respondent should list all. Thus, if the respondent listed an option, we considered that they are aware of the risk; otherwise, they are not.
visa_Europe	Categorical	D.6.1.6. Do you think you need any formal permit (i.e. visa) to migrate to Europe?	Dichotomized as follows: <b>The Gambia:</b> 1: “Knows” if response is “Yes” or “It depends”. 0: “Does not know” otherwise. <b>Guinea:</b> 1: “Knows” if response is “Yes” or “It depends”. 0: “Does not know” otherwise. <b>Nigeria:</b> 1: “Knows” if response is “Yes” or “It depends”. 0: “Does not know” otherwise. <b>Senegal:</b> 1: “Knows” if response is “Yes” or “It depends”. 0: “Does not know” otherwise.
visa_Europe1	Categorical	D.6.2.1. To the best of your knowledge, are you allowed to work when staying in Europe on a tourist visa?	Dichotomized as follows: <b>For all the four countries:</b> 1: “Knows” if response is “No”. 0: “Does not know” otherwise.
visa_Europe2	Categorical	D.6.2.2. To the best of your knowledge, are you allowed to work when staying in Europe on a student visa?	Dichotomized as follows: <b>For all the four countries:</b> 1: “Knows” if response is “Yes”. 0: “Does not know” otherwise.
duration_Europe	Integer	D.6.3.1. How many days minimum do you think it would take to travel by sea and/or land with the help of a facilitator to reach Europe on a non-stop trip?	Dichotomized as follows: 1: “Knows” if the amount given is equal to or greater than the minimum amount given here. 0: “Does not know” otherwise.  Minimum duration per country: <b>The Gambia:</b> 5 days <b>Guinea:</b> 90 days <b>Nigeria:</b> 14 days <b>Senegal:</b> 3 days

A binary “index knowledge” variable was generated with the label “Knows irregular migration and local opportunities” as follows:

First, all the above variables were summed up.

Then the “knowledge” variable received the following value:

1: “Acceptable knowledge of irregular migration and local opportunities” if a respondent has scored at least 6 out of 9 for the sum.

0: “Improvable knowledge of irregular migration and local opportunities” otherwise.

### 11.4.3. Perceptions

Perception is the way in which something is regarded, understood or interpreted. In the context of this study, several perception indicators, each of them related to a particular topic around migration, were created. Details are provided in the table below.

Table 22. Details about the creation of the indicators of perceptions

Variable name in the data set	Type	Question associated in the questionnaires	Transformation
time_remitt	Integer	How long (in number of months) do you think it takes for someone from your community who has migrated to Europe to start sending money home, counting from the time they left the country?	Dichotomized as follows: 1: "Optimistic perspective of sending remittances" if 12 months or less. 0: "Non-optimistic perspective of sending remittances" otherwise.
info_loppportunity	Likert scale	Find information about local opportunities.	Dichotomized as follows: 1: "Perceives finding information about local opportunities easy" if "Very easy" or "Somewhat easy". 0: "Perceives finding information about local opportunities not easy" otherwise.
How likely do you think these risks could occur to you personally if you attempted to migrate to Europe by sea/land?			
risk_injury	Likert scale	Physical injury or illness	These variables were Likert scales with the following options: 7 It is sure 6 Very likely 5 Likely 4 Maybe 3 Unlikely 2 Very unlikely 1 No chance 0 I don't know  Each of them was rendered binary the following way: if the response is "It is sure", "Very likely" or "Likely", the recoded variable takes the value "1" and "0" otherwise.
risk_death	Likert scale	Death	
risk_gbv	Likert scale	Gender-based violence	
risk_dep_liberty	Likert scale	Deprivation of liberty	
risk_witn_death	Likert scale	Direct witnessing of death	
risk_abandon	Likert scale	Abandonment along the journey	
risk_imprisonment	Likert scale	Imprisonment	
risk_labour	Likert scale	Forced labour	
risks	Binary	Index of perceptions of commonly known risks	All the recoded binary risks above were summed up, and a new binary variable was created as follows:  1: "High perception of risk for oneself" if the summed value is 8 – that is, the respondent knows all the commonly known risks. 0: "Low perception of risk for oneself" otherwise.

## 11.5. Annex 5. External academic review board

### 11.5.1. List of members

Table 23. Academic review board members

	Name	Institution	Key expertise
1	David McKenzie	World Bank, Development Research Group, Lead Economist	Migration, development, (quasi-)experimental methods for impact evaluation
2	Cris Beauchemin	Institut national d'études démographiques, Senior Researcher	International migration, development, demography, survey methodology and data collection in West Africa
3	Various (Bernd Beber, Alexandra Scacco, Max Schaub, Daniel Auer)	Berlin Social Science Center, Department of Migration, Integration and Transnationalization	Migration, methods of causal inference
4	Dominik Hangartner	ETH Zurich, Associate Professor and Director of Immigration Policy Lab	Migration, integration, measurement of policy effects
5	Flore Gubert	Institut de Recherche pour le Développement	Development economics
6	Robert Lensink	University of Groningen, Professor	Decision-making, low-income contexts, impact evaluation
7	Jessica Hagen-Zanker	Overseas Development Institute, Senior Research Fellow	Migration research, policy, data collection in Africa
8	Jørgen Carling	Peace Research Institute Oslo, Research Professor	Theories of migration, decision-making, intentions and aspirations
9	Cátia Batista	Nova School of Business and Economics, Associate Professor	Experimental methods, (irregular) migration, West Africa
10	Tobias Stöhr	Kiel Institute for the World Economy	Development economics, migration
11	Linguère Mously Mbaye	African Development Bank	Migration, African context, experimental research
12	Samba Mbaye	Université Gaston Berger, Senegal	Impact evaluations, experimental research, West Africa

### 11.5.2. Dates of meetings and other contributions

- First meeting was on 11 March 2020 (online due to COVID-19). This meeting discussed the design, and a cRCT approach was found appropriate to the type of interventions.
- On 30 November 2021 (online due to COVID-19), the meeting discussed the baseline data-collection process and basic baseline analysis.
- On 7 November 2022 (mixed – online and in person in Berlin), there was a discussion about the whole process and findings.

Individual experts from the board have been solicited sometimes to advise on specific aspects. As an example, Max Schaub, Flore Gubert and Samba Mbaye provided decisive contributions to the design of the questionnaire and the pre-analysis plan.

## 11.6. Annex 6. Robustness check tables

Table 24. Single difference in the Gambia

Group	Outcomes	N	All*	N	Control*	N	Treatment*	Difference**	p-value**
Attitude	Contacted a facilitator	373	0.01	255	0.02	118	0.01	0.01	0.600
Intention	Intends to migrate irregularly	1 488	0.49	981	0.47	507	0.53	-0.07	0.016
Knowledge	Has a fair knowledge of transit countries	3 811	0.14	2 395	0.15	1 416	0.12	0.03	0.024
	Local government offices	2 665	0.28	1 687	0.29	978	0.27	0.01	0.500
	Local NGOs	2 665	0.09	1 687	0.10	978	0.08	0.02	0.052
	Online sources	2 665	0.14	1 687	0.15	978	0.11	0.05	<0.001
	Personal network	2 665	0.27	1 687	0.24	978	0.31	-0.06	<0.001
	Index of acceptable knowledge of irregular migration issues	3 811	0.10	2 395	0.10	1 416	0.10	0.00	>0.900
Perceptions	Perceived ease of sending remittances as a person who migrated irregularly	2 125	0.39	1 319	0.39	806	0.40	-0.02	0.500
	Perceived ease of finding information about local opportunities	3 811	0.21	2 395	0.22	1 416	0.18	0.03	0.012
	Perceived risk of physical injury or illness on oneself in an attempt to migrate irregularly	2 665	0.73	1 687	0.73	978	0.73	0.00	>0.900
	Perceived risk of death for oneself in an attempt to migrate irregularly	2 665	0.70	1 687	0.70	978	0.71	-0.01	0.400
	Perceived risk of gender-based violence on oneself in an attempt to migrate irregularly	2 665	0.68	1 687	0.68	978	0.69	-0.01	0.700
	Perceived risk of deprivation of liberty for oneself in an attempt to migrate irregularly	2 665	0.72	1 687	0.71	978	0.72	-0.01	0.500
	Perceived risk of abandonment along the journey for oneself in an attempt to migrate irregularly	2 665	0.70	1 687	0.69	978	0.74	-0.05	0.006
	Perceived risk of imprisonment for oneself in an attempt to migrate irregularly	2 665	0.73	1 687	0.72	978	0.75	-0.04	0.036
	Perceived risk of forced labour on oneself in an attempt to migrate irregularly	2 665	0.72	1 687	0.71	978	0.74	-0.03	0.073
	Level of perception of risks	2 665	5.70	1 687	5.63	978	5.83	-0.20	0.090

\* Mean.

\*\* Two-sample t-test.



Table 25. Double difference in the Gambia

Group	Outcomes	N	All*	N	Control*	N	Treatment*	Difference**	p-value**
Attitude	Contacted a facilitator	75	0.00	51	0.00	24	0.00	0.00	>0.900
Intention	Intends to migrate irregularly	1 172	0.10	763	0.09	409	0.12	-0.04	0.300
Knowledge	Has a fair knowledge of transit countries	3 811	-0.37	2 395	-0.35	1 416	-0.39	0.04	0.040
	Local government offices	2 665	0.05	1 687	0.05	978	0.03	0.02	0.500
	Local NGOs	2 665	0.00	1 687	0.01	978	-0.01	0.02	0.200
	Online sources	2 665	-0.04	1 687	-0.02	978	-0.06	0.03	0.085
	Personal network	2 665	-0.17	1 687	-0.17	978	-0.16	0.00	0.900
	Index of acceptable knowledge of irregular migration issues	3 811	-0.41	2 395	-0.41	1 416	-0.40	-0.01	0.700
Perceptions	Perceived ease of sending remittances as a person who migrated irregularly	2 010	-0.12	1 239	-0.13	771	-0.10	-0.03	0.300
	Perceived ease of finding information about local opportunities	3 811	-0.16	2 395	-0.15	1 416	-0.18	0.03	0.110
	Perceived risk of physical injury or illness on oneself in an attempt to migrate irregularly	2 665	-0.08	1 687	-0.07	978	-0.09	0.02	0.400
	Perceived risk of death for oneself in an attempt to migrate irregularly	2 665	0.03	1 687	0.04	978	0.02	0.02	0.500
	Perceived risk of gender-based violence on oneself in an attempt to migrate irregularly	2 665	-0.04	1 687	-0.02	978	-0.07	0.05	0.046
	Perceived risk of deprivation of liberty for oneself in an attempt to migrate irregularly	2 665	0.02	1 687	0.03	978	0.01	0.02	0.400
	Perceived risk of abandonment along the journey for oneself in an attempt to migrate irregularly	2 665	0.06	1 687	0.04	978	0.09	-0.05	0.069
	Perceived risk of imprisonment for oneself in an attempt to migrate irregularly	2 665	0.00	1 687	-0.02	978	0.02	-0.04	0.120
	Perceived risk of forced labour on oneself in an attempt to migrate irregularly	2 665	0.01	1 687	-0.01	978	0.05	-0.06	0.013
	Level of perception of risks	2 665	0.07	1 687	0.03	978	0.12	-0.08	0.600

\* Mean.

\*\* Two-sample t-test.

Table 26. Single difference in Guinea

Group	Outcomes	N	All*	N	Control*	N	Treatment*	Difference**	p-value**
Attitude	Contacted a facilitator	399	0.08	248	0.07	151	0.09	-0.01	0.600
Intention	Intends to migrate irregularly	1 381	0.49	883	0.51	498	0.46	0.05	0.084
Knowledge	Has a fair knowledge of transit countries	3 901	0.21	2 429	0.21	1 472	0.21	0.01	0.600
	Local government offices	3 491	0.38	2 154	0.42	1 337	0.32	0.10	<0.001
	Local NGOs	3 491	0.27	2 154	0.27	1 337	0.28	-0.02	0.300
	Online sources	3 491	0.08	2 154	0.06	1 337	0.09	-0.03	<0.001
	Personal network	3 491	0.49	2 154	0.50	1 337	0.48	0.02	0.300
	Index of acceptable knowledge of irregular migration issues	3 901	0.04	2 429	0.03	1 472	0.06	-0.03	<0.001
Perceptions	Perceived ease of sending remittances as a person who migrated irregularly	3 175	0.25	1 969	0.24	1 206	0.26	-0.01	0.400
	Perceived ease of finding information about local opportunities	3 901	0.18	2 429	0.15	1 472	0.21	-0.06	<0.001
	Perceived risk of physical injury or illness on oneself in an attempt to migrate irregularly	3 491	0.69	2 154	0.68	1 337	0.71	-0.03	0.072
	Perceived risk of death for oneself in an attempt to migrate irregularly	3 491	0.72	2 154	0.70	1 337	0.75	-0.05	0.003
	Perceived risk of gender-based violence on oneself in an attempt to migrate irregularly	3 491	0.60	2 154	0.60	1 337	0.60	0.00	0.800
	Perceived risk of deprivation of liberty for oneself in an attempt to migrate irregularly	3 491	0.63	2 154	0.63	1 337	0.63	0.00	0.900
	Perceived risk of abandonment along the journey for oneself in an attempt to migrate irregularly	3 491	0.69	2 154	0.71	1 337	0.66	0.04	0.010
	Perceived risk of imprisonment for oneself in an attempt to migrate irregularly	3 491	0.66	2 154	0.66	1 337	0.68	-0.02	0.200
	Perceived risk of forced labour on oneself in an attempt to migrate irregularly	3 491	0.65	2 154	0.65	1 337	0.66	-0.01	0.400
	Level of perception of risks	3 491	5.34	2 154	5.31	1 337	5.39	-0.09	0.400

\* Mean.

\*\* Two-sample t-test.

Table 27. Double difference in Guinea

Group	Outcomes	N	All*	N	Control*	N	Treatment*	Difference**	p-value**
Attitude	Contacted a facilitator	19	0.00	16	0.00	3	0.00	0.00	N/A
Intention	Intends to migrate irregularly	417	-0.05	275	0.02	142	-0.19	0.21	0.002
Knowledge	Has a fair knowledge of transit countries	3 901	0.12	2 429	0.12	1 472	0.13	-0.01	0.500
	Local government offices	3 444	0.23	2 112	0.28	1 332	0.16	0.13	<0.001
	Local NGOs	3 444	0.09	2 112	0.09	1 332	0.10	0.00	0.900
	Online sources	3 444	0.00	2 112	-0.02	1 332	0.03	-0.05	<0.001
	Personal network	3 444	0.15	2 112	0.19	1 332	0.09	0.10	<0.001
	Index of acceptable knowledge of irregular migration issues	3 901	0.00	2 429	-0.01	1 472	0.02	-0.02	0.007
Perceptions	Perceived ease of sending remittances as a person who migrated irregularly	3 130	-0.43	1 929	-0.41	1 201	-0.46	0.06	0.013
	Perceived ease of finding information about local opportunities	3 901	0.07	2 429	0.05	1 472	0.11	-0.07	<0.001
	Perceived risk of physical injury or illness on oneself in an attempt to migrate irregularly	3 444	-0.06	2 112	-0.10	1 332	0.00	-0.11	<0.001
	Perceived risk of death for oneself in an attempt to migrate irregularly	3 444	-0.01	2 112	-0.06	1 332	0.06	-0.12	<0.001
	Perceived risk of gender-based violence on oneself in an attempt to migrate irregularly	3 444	0.09	2 112	0.06	1 332	0.14	-0.07	0.003
	Perceived risk of deprivation of liberty for oneself in an attempt to migrate irregularly	3 444	0.08	2 112	0.07	1 332	0.10	-0.03	0.300
	Perceived risk of abandonment along the journey for oneself in an attempt to migrate irregularly	3 444	0.12	2 112	0.09	1 332	0.18	-0.09	<0.001
	Perceived risk of imprisonment for oneself in an attempt to migrate irregularly	3 444	0.06	2 112	0.05	1 332	0.07	-0.02	0.400
	Perceived risk of forced labour on oneself in an attempt to migrate irregularly	3 444	0.13	2 112	0.11	1 332	0.17	-0.05	0.031
	Level of perception of risks	3 444	0.55	2 112	0.32	1 332	0.92	-0.61	<0.001

\* Mean.

\*\* Two-sample t-test.

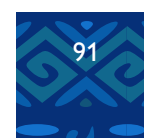


Table 28. Single difference in Senegal

Group	Outcomes	N	All*	N	Control*	N	Treatment*	Difference**	p-value**
Attitude	Contacted a facilitator	357	0.05	215	0.06	142	0.04	0.02	0.500
Intention	Intends to migrate irregularly	1 692	0.07	1 006	0.08	686	0.06	0.02	0.130
Knowledge	Has a fair knowledge of transit countries	3 019	0.18	1 762	0.16	1 257	0.22	-0.06	<0.001
	Local government offices	2 542	0.33	1 506	0.30	1 036	0.37	-0.07	<0.001
	Local NGOs	2 542	0.20	1 506	0.16	1 036	0.26	-0.10	<0.001
	Online sources	2 542	0.25	1 506	0.21	1 036	0.30	-0.09	<0.001
	Personal network	2 542	0.54	1 506	0.52	1 036	0.56	-0.04	0.046
	Index of acceptable knowledge of irregular migration issues	3 019	0.26	1 762	0.23	1 257	0.30	-0.07	<0.001
Perceptions	Perceived ease of sending remittances as a person who migrated irregularly	2 165	0.58	1 281	0.58	884	0.59	-0.01	0.500
	Perceived ease of finding information about local opportunities	3 019	0.23	1 762	0.22	1 257	0.24	-0.02	0.200
	Perceived risk of physical injury or illness on oneself in an attempt to migrate irregularly	2 542	0.87	1 506	0.83	1 036	0.91	-0.08	<0.001
	Perceived risk of death for oneself in an attempt to migrate irregularly	2 542	0.88	1 506	0.85	1 036	0.93	-0.08	<0.001
	Perceived risk of gender-based violence on oneself in an attempt to migrate irregularly	2 542	0.64	1 506	0.61	1 036	0.68	-0.08	<0.001
	Perceived risk of deprivation of liberty for oneself in an attempt to migrate irregularly	2 542	0.80	1 506	0.77	1 036	0.85	-0.08	<0.001
	Perceived risk of abandonment along the journey for oneself in an attempt to migrate irregularly	2 542	0.84	1 506	0.81	1 036	0.88	-0.07	<0.001
	Perceived risk of imprisonment for oneself in an attempt to migrate irregularly	2 542	0.81	1 506	0.79	1 036	0.85	-0.06	<0.001
	Perceived risk of forced labour on oneself in an attempt to migrate irregularly	2 542	0.76	1 506	0.73	1 036	0.81	-0.08	<0.001
	Level of perception of risks	2 542	6.49	1 506	6.25	1 036	6.83	-0.58	<0.001

\* Mean.

\*\* Two-sample t-test.

Table 29. Double difference in Senegal

Group	Outcomes	N	All*	N	Control*	N	Treatment*	Difference**	p-value**
Attitude	Contacted a facilitator	96	-0.02	55	-0.02	41	-0.02	0.01	>0.900
Intention	Intends to migrate irregularly	1 187	-0.01	689	0.00	498	-0.01	0.01	0.500
Knowledge	Has a fair knowledge of transit countries	3 019	0.07	1 762	0.05	1 257	0.09	-0.03	0.053
	Local government offices	2 542	0.02	1 506	0.03	1 036	0.00	0.04	0.130
	Local NGOs	2 542	-0.01	1 506	0.00	1 036	-0.01	0.01	0.600
	Online sources	2 542	0.03	1 506	0.01	1 036	0.06	-0.05	0.021
	Personal network	2 542	0.14	1 506	0.11	1 036	0.19	-0.08	0.002
	Index of acceptable knowledge of irregular migration issues	3 019	0.05	1 762	0.03	1 257	0.07	-0.04	0.039
Perceptions	Perceived ease of sending remittances as a person who migrated irregularly	1 835	-0.02	1 085	-0.03	750	-0.02	-0.01	0.700
	Perceived ease of finding information about local opportunities	3 019	-0.05	1 762	-0.06	1 257	-0.04	-0.02	0.300
	Perceived risk of physical injury or illness on oneself in an attempt to migrate irregularly	2 542	0.06	1 506	0.06	1 036	0.05	0.01	0.500
	Perceived risk of death for oneself in an attempt to migrate irregularly	2 542	0.08	1 506	0.08	1 036	0.09	-0.02	0.300
	Perceived risk of gender-based violence on oneself in an attempt to migrate irregularly	2 542	-0.01	1 506	0.03	1 036	-0.06	0.10	<0.001
	Perceived risk of deprivation of liberty for oneself in an attempt to migrate irregularly	2 542	0.13	1 506	0.14	1 036	0.10	0.04	0.067
	Perceived risk of abandonment along the journey for oneself in an attempt to migrate irregularly	2 542	0.14	1 506	0.14	1 036	0.13	0.02	0.400
	Perceived risk of imprisonment for oneself in an attempt to migrate irregularly	2 542	0.16	1 506	0.17	1 036	0.14	0.03	0.200
	Perceived risk of forced labour on oneself in an attempt to migrate irregularly	2 542	0.16	1 506	0.18	1 036	0.13	0.05	0.043
	Level of perception of risks	2 542	0.87	1 506	0.98	1 036	0.72	0.25	0.063

\* Mean.

\*\* Two-sample t-test.





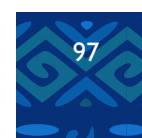
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