



THE WIDER IMPACT ON COMMUNITIES IN FORMAL AND INFORMAL SETTLEMENTS: on the U.S.-Mexico border

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Abstract

The following research adds to the larger corpus that interrogates the impacts of shelter and settlements assistance on health outcomes of vulnerable communities. This work augments the body of evidence linking shelter and settlements to non-shelter outcomes. Spatial analysis of formal and informal settlements located in violent urban spaces visualize play and public space accessibility as proxy health indicators for child migrant well-being and happiness, as well as community stability. Mapping methodologies augmented by interview analysis highlight the positive impacts of shelter and settlement assistance on health outcomes of migrant populations and the obstacles that can impede them. Case studies are drawn from formal and informal settlements located along the U.S.-Mexico border in Reynosa, Tamaulipas, Mexico: Plaza de la República (“The Plaza”), Senda de Vida II and the Rio Camp through project-based research.

Key words: shelter and settlements assistance, health, play, public space, urban space, migration, violence, discrimination, turnover, U.S.-Mexico border

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Chapter 1: Introduction

1.1. Background

1.1.1. Latin American Migration Trends

In 2022, “humanitarian response plans for Latin America and the Caribbean were among the least well funded in the world” despite making up “42% of the world’s new asylum applications” (Mohor, 2023, para. 19). Additionally, the region hosts “about 20% of the global total” of refugees (Hujale et al., 2023, para. 2). With the rise in political and economic crises, climate-related events, criminal activity and the on-going effects of the COVID-19 pandemic, Latin America and the Caribbean are “leading to societal breakdowns and overwhelming the efforts of humanitarian groups to respond” (Mohor, 2023, para. 2). In the last few years, the culmination of Haiti’s state failure, the Northern Triangle’s mass exodus, the Darién Gap influx, and controversial U.S. immigration policy implications continue to fuel instability and violence in the region (Roy, 2022). The Latin American migrant crisis is growing, with hundreds of thousands of diverse travelers from Latin America, the Caribbean, Europe, Africa and Asia navigating urban areas, traversing the Darién Gap and crossing multiple international borders with the United States as their final destination (Selee et al., 2023). According to UNICEF, “one in four people on the move in Latin America and the Caribbean is a child, the highest proportion globally” (UNICEF, 2023). Additionally, 2023 witnessed 2.5 million migrants entering the U.S. through the southern border (Putzel-Kavanaugh, 2023, para. 1). Various routes along Latin America run to northern Mexican cities leaving large populations waiting for their American immigration appointments in formal and informal settlements. The following research studies the development of these settlements, their shelter strategies and their adjacencies to available services and spaces in three case studies in the border city of Reynosa.

1.1.2. Introduction to S&S

Shelter and settlements assistance connects the wide programming of humanitarian spaces through collaborative design and placemaking strategies, mitigating health risks, amplifying access to livelihoods, establishing educational and recreational environments, addressing protection, minimizing climate-related vulnerabilities and encouraging community building. Shelter typologies, the proximity of shelters to services, and the availability of play and public space within settlements have a direct impact on the health outcomes of children within the settlements, as well as on the entire community at large. Through qualitative research methodologies of mapping and interviewing, the presented case studies analyze the positive impacts of shelter and settlements on health outcomes of migrant communities.

1.1.3. Play and Public Space: Proxy Health Indicators

This study highlights access to play and public space as a proxy health indicators for child health and wellbeing. Based on Piaget’s Theory of Cognitive Development, Vygotsky’s Sociocultural Theory, Erikson’s Theory of Psychosocial Development and Freud’s Psychoanalytic Theory, play is integral to a child’s development (Erikson, 1977; Freud, 1922; Piaget, 1962; Vygotsky, 1933). The following theories together highlight how a child’s environment, their social interactions and culture influence their cognitive and emotional development. The social, physical and mental work of play develops child autonomy, identity, sense of self and sense of belonging to a community at large. Access to public spaces becomes a proxy health indicator, boosting social connections and addressing mental and physical health needs with spatial opportunities for rest, recovery and activity. Play and public space accessibility impacts physical, mental and cognitive development in children, inherently increasing happiness, well-being, normalcy and stability for the community at large.

1.2. Identified Research Gaps and Objectives

The following research adds to the larger corpus that interrogates the impacts of shelter and settlements assistance on health outcomes of vulnerable communities. This work augments the body of evidence linking shelter and settlements to non-shelter outcomes. Case studies are drawn from formal and informal settlements located along the U.S.-Mexico border in Reynosa.

The report addresses the following research question and subquestion:

1. What are the impacts of shelter and settlements assistance on health outcomes of migrant communities on the U.S.-Mexico border?
 - a. What is the role of shelter and settlements in creating play and public space for asylum seeking children and communities at large?
 - b. How does shelter and settlements assistance affect the well-being and happiness of children, and how is this linked to the stability of migrant communities?

Chapter 2: Context

2.1. Existing Research

2.1.1. Key Definitions and Standards

For the purpose of this research, camps and settlements are defined differently; camps are internationally recognized and have access to international aid, settlements are not. The reason for this separation is to clearly identify that the case studies within this thesis are formal settlements and informal tented settlements and do not fall under the international camp standards as they are not internationally recognized camps. Making this distinction, as seen in Figure 1, allows for a comparative analysis of grassroots initiatives compared to international development intervention. Additionally, the research highlights how the “cultural, financial and governmental differences” affect the development of these settlements, their perception, funding and the politics surrounding their opening and closing (Wang, 2022, p. 31).

Term	Definition
Spontaneous Camps	formed without adequate planning in order to meet immediate needs. Aside from creating an unfriendly environment, the provision of services may become cumbersome and costly
Planned Camps	refugees are accommodated in purpose-built sites where a full range of services, within possible means, are provided
Formal	the capitalist, neoliberal and global economy; in urbanism, the formal is planned, institutional and legal city; in cultural terms the formal is arguably the contemporary version of the established tradition; formal may imply legality
Informal Tented Settlements	Self-established unplanned camps, set on either publicly or privately owned land, and could include multiple types of shelter ranging from handmade tents to rigid structures

Figure 1: Defining camps v. settlements. Formatted by Author, 2023. Data from: (Alsheikhali et. al, 2017, p. 4; Hernández-García, 2013, p. 16; UNHCR, 2007, p. 208)

The following section defines applicable UNHCR emergency indicators and Sphere standards¹. Based on the data from Figures 2 and 3, the key takeaways for the purpose of this research include that every person needs at least 30 m² of site space and a minimum ratio between covered living space and plot size at 1:2 (Sphere, 2018; UNHCR, 2007). It is particularly interesting to note the emphasis on common space accessibility and the positive correlation between clustering and vulnerability (Sphere, 2018). Understanding the internationally recognized minimum spatial requirements and how “the layout, infrastructure and shelter of a camp will have a major influence on the safety and well-being of refugees,” contextualizes accessibility and programming of space within the formal and informal settlement case studies (UNHCR, 2007, p. 207). Space becomes an opportunity to analyze distinct power relations as “material conditions can contribute to the likelihood of violence, and often this relationship is mediated by stress” (Bartlett, 2017, p. 6). The international site criteria is imperative for achieving safety and health standards, as its been proven that overcrowding has increased risks, particularly in children, spreading diseases like bronchiolitis, pneumonia, gastroenteritis, meningococcal disease, COVID-19, among other infections (Baker et al., 2013; Islam et al., 2021; Leibowitz et al., 2021).

¹ Sphere standards: a set of principles and minimum humanitarian standards in four technical areas of humanitarian response: WASH, food security and nutrition, shelter and settlement, and health (Sphere, 2018)

Indicator	Definition
45 m ² /person	m ² /person in camp-type settlements, including household plots
30 m ² /person	m ² /person, including household plots, where communal services can be provided outside the planned settlement area
1:2, move as soon as possible to 1:3 or more	minimum ratio between covered living space and plot size

Figure 2: Sphere Guidelines key indicators for shelter and settlement standard 2: location and settlement planning. Formatted by: Author, 2023. Data from: (Sphere, 2018, p. 250)

Indicator	Emergency Levels
Mortality rate	>2 per 10,000 per day
Nutritional status of children	>10% with less than 80% weight for height
Food	<2,100 calories/person/day
Water quantity	<10 litres per person/day
Water quality	>25% of people with diarrhea
SitesSpace	<30 sq. meters per person (this figure does not include any garden space)
Shelter space	< 3.5 sq. meters per person

Figure 3: UNHCR emergency indicators. Reformatted by: Author, 2023. Data from: (UNHCR, 2007, p. 64)

Taking into account the overcrowded conditions for migrants in Reynosa, I explored the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT) standards as a comparative data point. According to the CPT, a prisoner should have at least 4m² of living space per prisoner in a multiple-occupancy cell accompanied with a fully-partitioned sanitary facility (CPT, 2015, p. 1). This standard, along with the UNHCR and Sphere standards above, will be used in the analysis of the Plaza, Senda de Vida II and Rio Camp conditions.

2.1.2. U.S. Immigration Policy and Settlements

U.S. immigration policies, like the Migrant Protection Protocols (MPP), Title 42 and Title 8, have heavily influenced the influx of migrants in and out of the border. These policies accompanied with lower refugee admissions, evidenced in Figure 6, as well as, increased family separation and detention have created a bottleneck of low resources and high density populations in Northern Mexico.

Year	Annual Ceiling	Number of Admitted Refugees
2019	30,000	30,000
2020	18,000	11,814
2021	62,500	11,411
2022	125,000	25,465
2023 Year to Date	125,000	18,429

Figure 4: U.S. Annual Refugee Resettlement Ceilings and Number of Refugees Admitted 2019-Present. Reformatted by: Author, 2023. Data from: (Migration Policy Institute, 2023)

Upon defining MPP, Title 42, and Title 8, this research visualizes how U.S. immigration policy development directly correlates to settlement development on the U.S. Mexico border. To begin, MPP was a Trump policy enacted in January 2019, and is known by many as the “Remain in Mexico Program” (American Immigration Council, 2022). Migrants seeking asylum at the border are sent back to Mexico to wait for their immigration court appearance; this could take months or years, and most are never granted asylum; in “2020, of the 42,012 MPP cases that had been completed under MPP 1.0, only 521 people were granted relief in immigration court” (American Immigration Council, 2022, p. 1). Title 42 came after the WHO announced COVID-19 as a pandemic, creating another controversial policy acting as a “public health order” (Reidy, 2023, para. 7). By shutting down the border, Trump used this public health order to “override immigration law” and “send them back across the border, arguing that taking migrants into custody in federal facilities would create more of a public health risk” (Ellis, 2023). Neither of these policies deterred migration to the United States. With both policies suspended as of May 2023, migrants are now being processed under Title 8, a policy with more severe deportation consequences. Those crossing the border are “banned from entering the U.S. for at least five years” potentially facing incarceration upon illegal reentry (Montoya-Galvez, 2023, para. 9). Settlements along the U.S.-Mexico border might begin to see a shift in demographics as “Mexico recently agreed to accept Cuban, Haitian, Nicaraguan and Venezuelan deportees at the request of the U.S.” while other migrants will be deported to their country of origin for “diplomatic and logistical reasons” (Montoya-Galvez, 2023, para. 10).

2.1.3. Tamaulipas

This research focuses on Northern Mexico, particularly in the state of Tamaulipas, categorized by the U.S. Department of State as a Category 4: Do Not Travel.² On the website, the U.S. Department of State describes the organized crime activity as “including gun battles, murder, armed robbery, carjacking, kidnapping, forced disappearances, extortion, and sexual assault” (U.S. Department of State, 2022, para. 2). Figure 7 shows the direct correlation between policy development and settlement development. Both MPP and Title 42 were contentious, provoking political debate and leaving thousands of migrants vulnerable in the development of new unsanitary, unsafe and insecure settlements. The onset of MPP led to what is now considered “the first refugee camp on the U.S.-Mexico border,” the Matamoros Camp (Jordan, 2021, para. 2). The Matamoros Camp is the only camp below that has been internationally recognized, so much so that the Biden administration vowed to close the camp upon election, as it “was a powerful symbol of the humanitarian impact of policies enacted by the administration” (Reidy, 2023, para. 3). Post the Biden administration’s initial suspension, the camp was bulldozed as the remaining migrants crossed, but within that same month, a new settlement “sprang up about 55 miles farther west, in the Mexican city of Reynosa,” La Plaza de la Republica, or “the Plaza.” The following case studies are explored: The Plaza, Senda de Vida II and the Rio Camp; all three are directly correlated to U.S. policy and each other.

Policies

<i>MPP</i>	Starts under Trump January 2019		Suspended under Biden January 2021	Reinstated under Biden December 2021		Suspended under Biden June 2021
<i>COVID-19</i>		Global Pandemic March 2020				
<i>Title 42</i>		Starts under Trump March 2020				Suspended under Biden May 2023
<i>Title 8</i>						Starts under Biden May 2023

2019

2021

2023

2020

2022

Settlements

<i>Matamoros Camp</i>	Starts July 2019		Bulldozed March 2021			Starts Again December 2022
<i>Plaza de la Republica</i>			Starts March 2021		Forced Close March 2022	
<i>Senda de Vida II</i>				Build Starts December 2021	Opens May 2022	
<i>Rio Camp</i>						Starts July 2022

Figure 5: Figure linking U.S. policies to the creation and closure of formal and informal settlements in Tamaulipas, Mexico. Elaborated by: Author, 2023

²There are four levels to the U.S. Travel Advisory System, with Level 4- Do Not Travel, as “the highest advisory level due to greater likelihood of life-threatening risks” (U.S. Department of State, 2023, para. 7).

2.2 Methodology

2.2.1 Data collection

In order to best understand space programming in formal and informal settlements in Northern Mexico, a mixed-methods qualitative approach was used to explore the complex set of factors surrounding the expansive and permanently transient phenomenon of three case studies: Plaza de la República (“the Plaza”), Senda de Vida II and the Rio Camp. Combining geospatial data “alongside traditional sources of information, provide exciting opportunities for detecting and mapping shelters and settlements,” allowing this research to engage with the growing interest of mapping, modeling and data management capacities in shelter and settlement responses (GSC, 2018, p. 160). Through mapping and qualitative interviews taken in July 2023 with sixteen women in Senda de Vida II and Rio Camp, social complexities, as well as the site’s physical attributes, are observed and analyzed to address the wider impact of shelter and settlements on migrant communities along the U.S.-Mexico border.

Through case study mapping, monthly data maps were generated through drone imagery, AutoCad and Adobe software. Solidarity Engineering’s drone data was cross analyzed with population estimates, highlighting the camps’ density developments since 2021. The Plaza drone imagery is from September 2021 to its closure in May 2022. The Senda de Vida II drone imagery is from its conception in December 2021 to February 2023. The Rio Camp drone imagery is from September 2022 to November 2022. Upon finding the density per capita of each camp, public space and play space availability was analyzed and compared results with Sphere guidelines, among other camp planning principles. Graphically mapping the development of each settlement visualizes growth patterns, materiality and scale of temporariness.

The qualitative interviews taken in July 2023, in partnership with Solidarity Engineering, focused on the experience of migrant women on the U.S.-Mexico border. Thirteen out of the sixteen women reported having children, offering perspective on child infrastructure within their respective settlement experiences. Ten women of varying ethnicities and shelter typology were interviewed at Senda II. Six Haitian women living in tents were interviewed at Rio Camp. The spatial analysis, paired with qualitative interviews highlights the impact of shelter and settlements assistance on migrant communities.

Chapter 3: Spatial Mapping and Analysis

3.1. Case Studies

Highlighted in Figure 8, the following three case studies: the Plaza, Senda de Vida II, and the Rio Camp line the U.S.-Mexico border and are within five minutes of each other.



Figure 6: Map of Reynosa, Tamaulipas, Mexico and McAllen, TX, USA. Plaza de la República (The Plaza) [1], Senda de Vida II [2] and the Rio Camp [3] are highlighted. Edited by: Author. Data from: Solidarity Engineering

3.1.1. Plaza de la República (“The Plaza”)

The closure of the Matamoros Camp, influenced by the brief suspension of MPP, birthed the Plaza de la República (“The Plaza”), an open, informal tented settlement (ITS) with worse conditions than the Matamoros camp; “waterborne illnesses, open defecation, and an increased tension within the migrant populations” among reported racism, kidnapping, corruption, extortions, overcrowding, food insecurity, assaults and lacking water supply, sanitation and hygiene promotion (WASH) infrastructure (Hennessy–Fiske, 2021; Jordan, 2021; Tucker, 2022, para. 7). Visible in Figure 9, the Plaza is just 500 meters from the Reynosa-Hidalgo International Bridge. The ITS lasted a year, with a peak density of 3,000 people. Highly diverse and in the literal plaza, the physical reflection of colonization reveals a new but same power imbalance and the notion of the right to the city. In waiting, migrants choose to be as close to the international bridge in case they are called, or if an opportunity arises to cross, risking their lives in an open ITS, exposed to ongoing Reynosa gang violence.

The Plaza drew heavy media attention, worrying the local government, and “in the absence of a large-scale aid response from Mexican authorities, UN agencies, or international NGOs, the volunteers, local organisations, and churches forming the backbone of the humanitarian effort along the border are [still] struggling to keep pace” (Reidy, 2023, para. 12). With shelters around the city at maximum capacity and MPP reinstated, the government prompted Pastor Hector, already running Senda de Vida I³, to expand his shelter and create Senda de Vida II, moving the thousands of migrants away from the public eye and into a more “formalized” setting. The Plaza was bulldozed, and Senda de Vida II opened.



Figure 7: Plaza de la República, the Reynosa-Hidalgo International Bridge, the Rio Grande. Edited by: Author, Photo by: Solidarity Engineering

³ A Christian shelter in Reynosa on the Rio Grande since 2000

The following four maps from September 2021 to May 2022 in Figure 11 show the progression of the Plaza to its ultimate bulldozing. The light orange reflects the tarp, while the darker orange are the tents and semi-permanent structures (e.g. portable toilets) visible from a birds eye view. In reality, there existed more semi-permanent structures under the tarp, but by differentiating the tarps from the tents, this perspective highlights the amount of shade over the space and the sheer density of material. Reynosa has volatile weather with extreme heat and extreme rain. The tarps, as a more affordable climate mitigation strategy, also created hidden corners and opportunities for violence. Additionally, the tarps defined the vertical affordance and yielded crouching while walking through the space. From an architectural perspective, although an open settlement, the inner pathways of the Plaza were darker, enclosed spaces. Without proper spacing and height restrictions, there existed fire risk, contamination, and extreme overcrowding. With trees on site, there seemed to be some small access to natural elements and potential small animals and birds.

On play, children were allowed to be more disruptive with an outdoor open camp. However, the inner density pushed play to the limited periphery on the sidewalks. The Sidewalk School, an organization providing emergency education for migrant children, set up a 35m² tent on the sidewalk to provide support. It is interesting to note, that the Sidewalk School also provided services close by the Plaza, offering an opportunity to walk children outside of the camp and into an adjacent space. Within the tented informal settlement, however, play was more running around the small plaza, piling onto broken wheeled objects, and spinning tops. If play occurred within the settlement, it occurred in the in-between and increased vulnerability. The only private space for play was within the cramped, dark, shared tents.

On public space, there were few tents and tarps dedicated to the public. With a 35m² child-friendly tent and 50m² of tent space for the public, public space occurred in only about 1.3% of the whole camp, and 100% of that space was shaded or enclosed.

On camps and settlements, the Plaza was an informal tented settlement. Although Matamoros Camp was officially recognized with UN presence, the Plaza was never officially recognized. The first organizations present on the plaza were local, Mexican churches. Those local churches continued to work on the Plaza and continue to donate services, resources and materials to Senda de Vida II and the Rio Camp. Other organizations with a presence at the Plaza included Médecins Sans Frontières (MSF), Global Response Management (GRM), Solidarity Engineering, Casa Lulu, the Sidewalk School. Save the Children was reportedly not allowed to work in the Plaza. The United Nations and International Organization for Migration (IOM) did not have a presence.

On design and participatory approaches, the Plaza was completely organized by the residents themselves along with aid provided by the organizations mentioned previously. Food was donated, and the kitchen staff was completely run by the migrants. Additionally, there were several tents set up selling food within the camp, creating their own small markets. There was even a migrant nail salon within the toilet waiting area where residents could get their nails done.

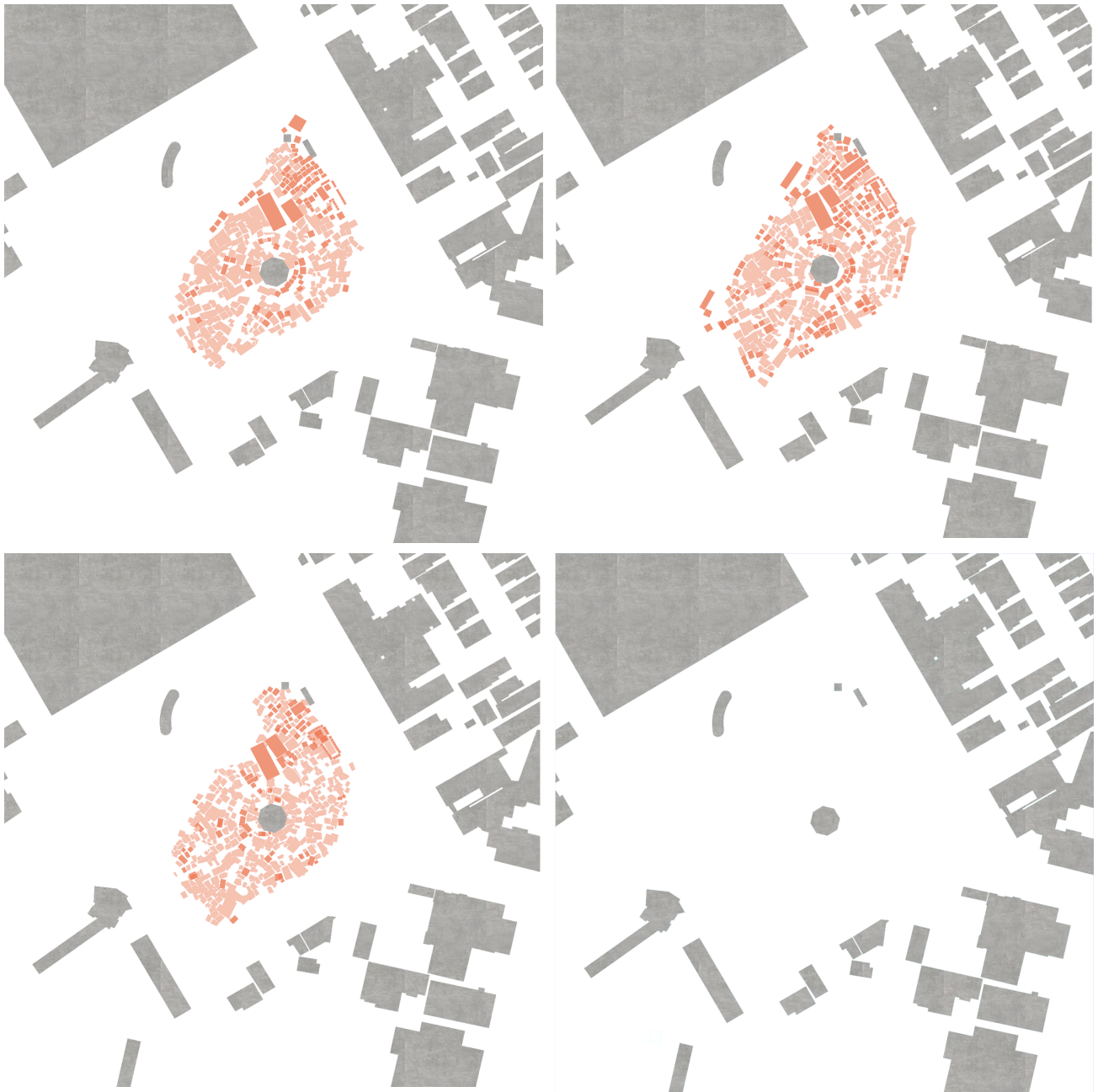


Figure 8: Plaza de la República informal settlement development: From left to right: September 2021 (a), November 2021 (b), March 2022 (c), May 2022(d).. Hatch gradient reflects level of permanence, with dark grey illustrating existing built environment. Elaborated by: Author. Data from: Solidarity Engineering drone data collection

3.1.2. Senda de Vida II (Senda II)

Less than three kilometers away from the Plaza, Senda de Vida II started taking in migrants. This research considers Senda de Vida II a closed, formal settlement, as its construction was prompted by the local authorities. Built on the community baseball fields, its three meter concrete walls enclose an area of 11,650 m². For safety reasons, migrants stay within the settlement, waiting for news on their U.S. immigration status. Their stay can be bleak with limited movement, resources and access to nature. Water is trucked in daily and WASH infrastructure was delayed; there were only eight portable toilets for the current three thousand residents living in Senda de Vida II as of May 2023. Under Sphere guidelines, there should be at least 60. (Sphere, 2018) With limited funds, resources, and land, concrete is prevalent throughout the site, creating drainage issues. At first a completely tented settlement, Senda II has built a large, open air, shared living space, as well as fifteen dormitory structures fitting twenty per dorm, supplementing the tents on site. Senda de Vida II is the only case study with a permanently built space dedicated for children in the settlement.

The following six maps from December 2021 to February 2023 in Figure 12 and 13 show the progression of the Senda de Vida II, from its building start date to its more present state. The varying shades of orange reflect the level of permanence, with the darkest orange being permanent infrastructure. Most infrastructure is constructed out of concrete and steel. The camp progressed from tents to more built infrastructure. Unlike the Plaza, there is a lot less tarp, and shaded structures are extremely necessary to avoid the heat. In Senda II, tarp is usually placed directly on top of tents and sometimes extended across to make small shaded outdoor spaces. The settlement was designed with limited space as there is no intention for an extension by the local government. Most of Senda II, like Senda I is built by the migrants themselves and with some local aid. Additionally, there is no connection to nature in this settlement, just gravel, concrete and dirt.

On play, children are more controlled with less freedom of movement. Although children are restricted from leaving Senda II, there is more freedom to run around the confines of the settlement with more safety than at the Plaza. Within the closed, formal settlement, there is a concerted effort to stop the children from playing with spinning tops; the settlement encourages less disruptive play, e.g. playing with marbles. Additionally, this site has a new 140m² playground built by a Solidarity Engineering and GDI partnership. There is also a reading area by the organization Rise Up and Read. Save the Children also has a small space under the cantina to do table activities with the kids sometimes twice a week.

On public space, the Solidarity Engineering and GDI partnership is currently building out a teen space and community space. Taking into consideration the playground, there is about 320 m² of public space in the camp, about 2.8%. Additionally, the entire space is shaded making it a popular spot at Senda II. The community space initially was going to be larger and more open, but there was a request to reprogram the space to include a charging station. In a society dependent on technology, public space can be created in phones through group messaging and online forums where people can socialize and share. Understandably, access to online public space is prioritized over a designed communal, gathering area.

On camps and settlements, Senda de Vida II is currently a closed, formal settlement, and is also not recognized internationally. However, MSF elevated the migrant crisis in Reynosa, increasing concern and getting IOM personnel on site. Solidarity Engineering, Save the Children, Catholic Charities and other local and international church groups also have a presence within the enclosed space.

On design and participatory approaches, Senda de Vida II is practically built by the migrants themselves, along with the help of local professionals. Because the settlement is enclosed with little to no movement, markets are more difficult to come by, and the physical growth of the camp is dependent upon donations and density. The permanent infrastructure growth, as well as the multiplicity of tents in the maps illustrates the changing conditions and movement within the space.



Figure 9: Senda de Vida II formal settlement development. From left to right: December 2021 (a), March 2022 (b), May 2022 (c) and June 2022 (d). Hatch gradient reflects level of permanence, with dark grey illustrating existing built environment. Elaborated by: Author. Data from: Solidarity Engineering drone data collection

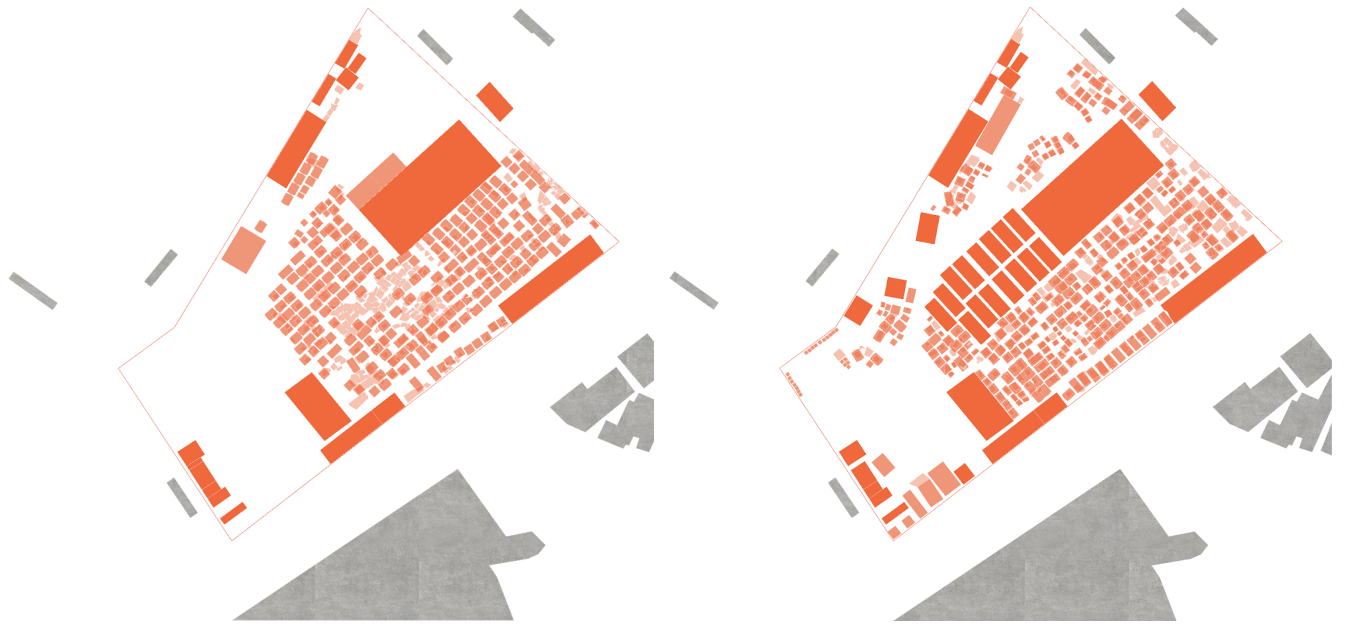


Figure 10: Senda de Vida II formal settlement development. From left to right: September 2022 (a) and February 2023 (b). Hatch gradient reflects level of permanence, with dark grey illustrating existing built environment. Elaborated by: Author. Data from: Solidarity Engineering drone data collection

3.1.3. The Rio Camp (Rio)

Within a month of Senda II opening, the Rio Camp, a two minute walk from Senda de Vida II and on the Rio Grande, started. A local opened his land for migrants to put up tents and temporary structures. Rio as an open, informal tented settlement on 2,500 m² of land, is predominantly Haitian. The settlement has no real authority or security. As of May 2023, there were about one thousand residents living at Rio Camp. Figure 10 illustrates this extreme proximity between the closed, formal settlement, open ITS and the river.



Figure 11: Senda de Vida II, The Rio Camp, The Rio Grande. Edited by: Author. Photos by: Solidarity Engineering

The following two maps from September 2022 to November 2022 in Figure 14 show the progression of the Rio Camp. Like the Plaza, there is a lot more tarp covering the space as a climate mitigation strategy, hiding the tents underneath. The Rio Camp is the most make-shift of the three settlements, utilizing fabric and sticks when tents are not readily available. The local who opened their land now has about one thousand residents settled in the space, waiting for asylum.

On play, similar to the Plaza, children can be a little more disruptive. Although an open settlement, they have restricted access for safety reasons. Adjacent to the Rio Grande, there is risk of open defecation, contamination and violence. There is no play space created for children in this settlement, and Save the Children is not present.

On public space, although there is no play space for children, there is a tarp area solely for men who play dominos. Additionally, the settlement has a small covered area for meetings, as well as a storage/donation public space, totaling to about 245 m² of public space, or 9.8% of the site. Although a large percentage of this space is inaccessible to some migrants, I find it is worth noting how communities create their own interesting spaces.

On camps and settlements, Rio Camp is an open, informal tented settlement. The settlement is completely reliant on donations, and the only organizations present are MSF, Solidarity Engineering, Haitian Bridge Alliance and local, Mexican churches. IOM has no presence.

On design and participatory approaches, Rio Camp is self-built and self-organized by the residents themselves and with the aid provided. Predominantly Haitian, Rio Camp is made up of whatever materials can be found locally. Without authority or protection, migrants in this camp are left extremely vulnerable. Whatever is desirable is not feasible, and whatever is feasible is not viable.

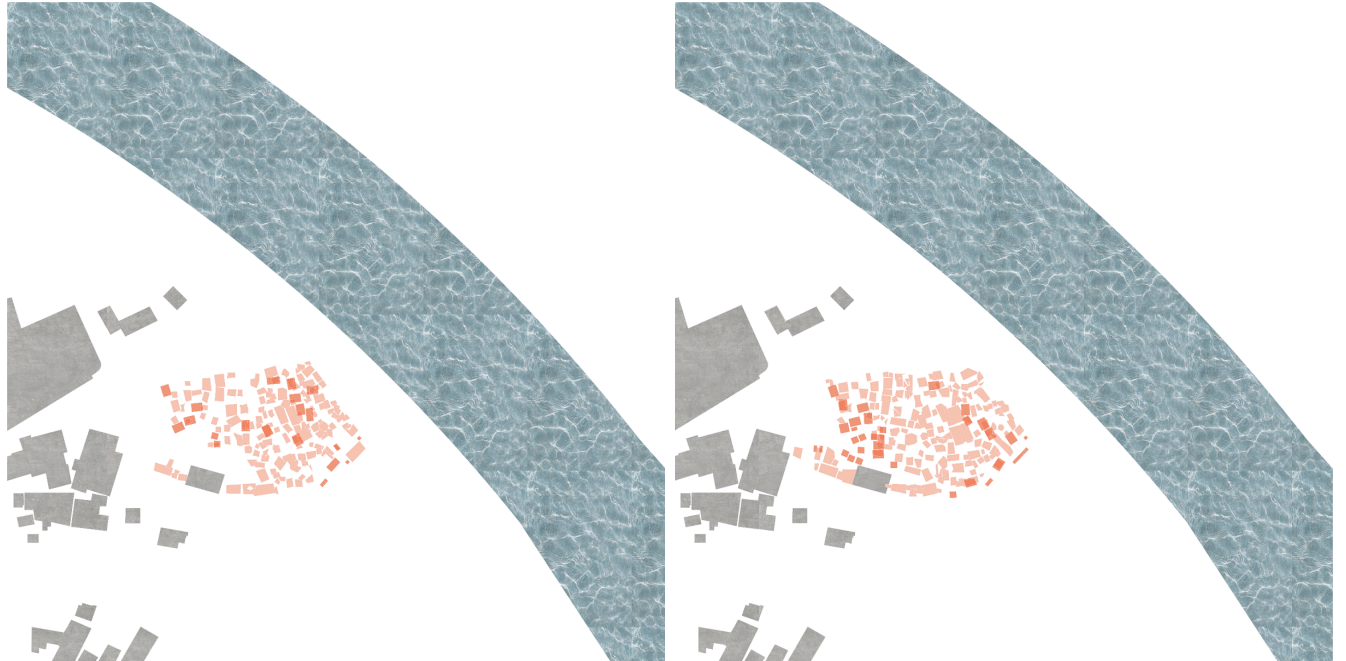


Figure 12: Rio Camp informal settlement development. From left to right: September 2022 (a), November 2022 (b). Hatch gradient reflects level of permanence, with dark grey illustrating existing built environment. Elaborated by: Author. Data from: Solidarity Engineering drone data collection

3.2. Population Density Data

3.2.1. Analysis

Analyzing existing site conditions, Figure 15 and 16 demonstrate how The Plaza, Senda de Vida II and the Rio Camp are not viable according to Sphere guidelines, UNHCR Emergency Indicators and CPT standards.

Existing Conditions: site m ²						
	Sphere Guidelines	UNHCR Emergency Indicator	CPT Standards	The Plaza	Senda de Vida II	The Rio Camp
1 person	45 m ²	30 m ²	4 m ²	-	-	-
500 people	22,500 m ²	15,000 m ²	2,000 m ²	6,500 m ²	11,650 m ²	2,500 m ²
1000 people	45,000 m ²	30,000 m ²	4,000 m ²	6,500 m ²	11,650 m ²	2,500 m²
1500 people	67,500 m ²	45,000 m ²	6,000 m ²	6,500 m ²	11,650 m ²	-
2000 people	90,000 m ²	60,000 m ²	8,000 m ²	6,500 m ²	11,650 m ²	-
2500 people	112,500 m ²	75,000 m ²	10,000 m ²	6,500 m ²	11,650 m ²	-
3000 people	135,000 m ²	90,000 m ²	12,000 m ²	6,500 m²	11,650 m²	-
3500 people	157,500 m ²	105,000 m ²	14,000 m ²	-		-

Figure 13: Figure comparing existing settlements' sizes (m²) to UNHCR and CPT standards. Elaborated by: Author, 2023. Data from: (CPT, 2015; Sphere, 2018; UNHCR, 2007) and Solidarity Engineering drone data collection

Existing Conditions: m ² /child						
	Sphere Guidelines	UNHCR Emergency Indicator	CPT Standards	The Plaza	Senda de Vida II	The Rio Camp
1 person	45 m ² /child	30 m ² /child	4 m ² /child	-	-	-
500 people	45 m ² /child	30 m ² /child	4 m ² /child	13 m ² /child	23.3 m ² /child	5 m ² /child
1000 people	45 m ² /child	30 m ² /child	4 m ² /child	6.5 m ² /child	11.65 m ² /child	2.5 m²/child
1500 people	45 m ² /child	30 m ² /child	4 m ² /child	4.3 m ² /child	7.77 m ² /child	-
2000 people	45 m ² /child	30 m ² /child	4 m ² /child	3.25 m ² /child	5.83 m ² /child	-
2500 people	45 m ² /child	30 m ² /child	4 m ² /child	2.6 m ² /child	4.66 m ² /child	-
3000 people	45 m ² /child	30 m ² /child	4 m ² /child	2.17 m²/child	3.88 m²/child	-
3500 people	45 m ² /child	30 m ² /child	4 m ² /child	-	3.33 m ² /person	-

Figure 14: Figure comparing existing settlements' conditions (m²/child) to UNHCR and CPT standards. Elaborated by: Author, 2023. Data from: (CPT, 2015; Sphere, 2018; UNHCR, 2007) and Solidarity Engineering drone data collection

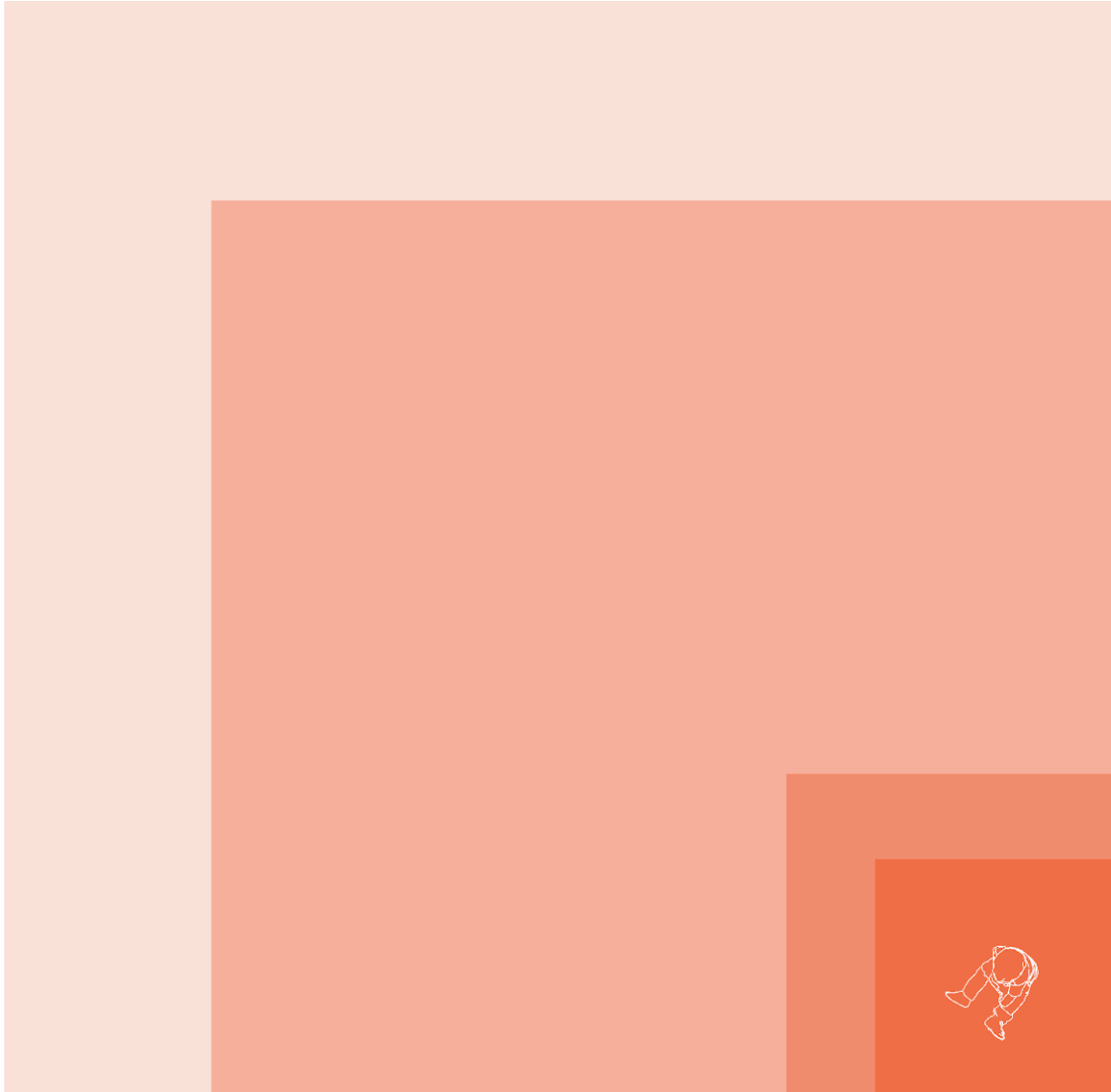


Figure 15: Illustration depicting UNHCR and CPT standards (m^2/child) to Reynosa Plaza de la República peak density of 3000 people. ($45 \text{ m}^2 \rightarrow 30 \text{ m}^2 \rightarrow 4 \text{ m}^2 \rightarrow 2.17 \text{ m}^2$). Elaborated by: Author, 2023. Data from: (CPT, 2015; Sphere, 2018; UNHCR, 2007) and Solidarity Engineering drone data collection

According to Sphere guidelines, there should only be 144 residents at the Plaza, 258 residents at Senda II, and 55 residents at the Rio Camp. At its peak, the Plaza reached 3,000 residents, Senda II has reached 3,000 residents and the Rio Camp has reached 1,000 residents, and Senda II and Rio Camp numbers are still growing. Figure 17 extrapolates data from Figure 16, comparing various space guidelines for children: Sphere's $45 \text{ m}^2/\text{child}$, UNHCR's emergency indicator of $30 \text{ m}^2/\text{child}$, CPT's standard of $4 \text{ m}^2/\text{child}$, and the actual $2.17 \text{ m}^2/\text{child}$ found at the Plaza's peak density. Instead of one child having 45 m^2 , the Plaza accommodated twenty children within that amount of space. Prisoners have more room than asylum-seeking children in these spaces.

Chapter 4: Findings

Interviews in both case studies highlight the impact of shelter and settlement assistance on health outcomes of migrant populations in Reynosa on the U.S.-Mexico border. Positive health outcomes of migrant populations can be analyzed at the scale of S&S intervention, i.e. at the scale of the shelter or settlement. Additional findings underscore ways in which violence, discrimination and high turnover of migrant populations impede positive impacts of shelter and settlements assistance.

4.1. S&S and Health Impact

General Finding 1: Provision of adequate shelter and settlements has a positive impact upon health.

The following table links adequate shelter assistance to positive health impacts for migrant communities in Reynosa. Notable findings show that improving energy access and thermal comfort reduces heat exhaustion; prioritizing ventilation through shelter orientation mitigates respiratory illness; appropriate bedding mitigates skin rashes, and constructed shelters address issues such as poor sanitation, hygiene, psychological stress and insecurity.

Health Issue Mitigated	Shelter Strategy	Reynosa Case Study Examples
Heat exhaustion	Climate responsive design strategies Passive/active cooling design Increasing thermal comfort Energy access	<ol style="list-style-type: none"> 1. Extreme weather events were reported (1 case: hail storm: near death experience in tent) 2. 100% of women interviewed reported extreme temperatures in shelters.
Respiratory illness	Shelter orientation and arrangement Prioritizing ventilation Minimizing overcrowding in shelters Developing outdoor public spaces	<ol style="list-style-type: none"> 1. 100% of casita users experienced respiratory illness, as opposed to 18% of tent users.
Skin rash	Appropriate bedding	<ol style="list-style-type: none"> 1. 100% of women at Senda II who slept on blankets reported a skin rash. 2. 100% of women who shared bedding from a previous resident reported a skin rash.
Poor sanitation and hygiene	Durable building materials that are easy to sanitize Equitable NFI distribution	<ol style="list-style-type: none"> 1. None of the women in casitas felt they had poor sanitation or hygiene, as opposed to 72% of tent users. 2. Several women discussed cleaning their shelters. 3. Only 12% of Latinas reported poor sanitation and hygiene, as opposed to 87% of Haitians. 4. Only 20% of casita users reported rats and small animals in their shelter. 90% of tent users reported rats and small animals.
Psychological stress	Access to constructed shelters Increasing shelter plot size Equitable shelter distribution	<ol style="list-style-type: none"> 1. Tent users were 50% more likely to be psychologically stressed than casita users. 2. 30% of Senda II residents and 80% of Rio residents spend most of their day directly outside of their shelter. 3. 100% of Latinos received shelter distribution, as opposed to 37% of Haitians. 4. Over 80% of tent users experienced leaks, as opposed to 20% of casita users. 5. 90% of tent users experienced structural instability, as opposed to 20% of casita users.
Insecurity/lack of safety	Constructed shelters Cash-based interventions (CBI)	<ol style="list-style-type: none"> 1. 100% of casita users felt secure and safe. 2. 90% of tent users felt insecure and unsafe. 3. Over 60% of Haitians paid for shelter materials.

Figure 16: Linking shelter to health. Elaborated by: Author 2023.

The following table links adequate settlements assistance to positive health impacts for migrant communities in Reynosa. Notable findings highlight the positive impact of providing adequate play spaces on children’s well-being; prioritizing shaded public areas effectively reduces both heat exhaustion and psychological distress; engaging local authorities in project planning can effectively mitigate instances of diarrhea, and improving period infrastructure can mitigate poor sanitation and hygiene.

Health Issue Mitigated	Settlement Strategy	Reynosa Case Study Examples
Heat exhaustion	Project planning Local authority/government engagement Prioritizing shaded area Prioritizing green space Expansion strategies	<ol style="list-style-type: none"> 1. Water scarcity in the area limits residents to less than 5L/day/family at Senda II, a UNHCR emergency indicator. 2. 100% of women interviewed reported heat exhaustion. Women seek shaded and ventilated spaces during the day. 3. 50% of Senda II residents reported overcrowding and limited space, and 100% of Rio residents reported overcrowding and limited space. 4. Both Senda II and Rio Camp conditions fall well below Sphere guidelines and UNHCR Emergency indicators, and on occasion in flux, fall below CPT standards.
Respiratory illness	Prioritizing open spaces	<ol style="list-style-type: none"> 1. Only 16% of Rio residents reported respiratory illness. 60% of Senda II residents reported respiratory illness.
Diarrhea	Project planning Local authority/government engagement Timeliness Coordination and partnerships Information sharing to settlement residents	<ol style="list-style-type: none"> 1. Ongoing challenges with the septic tank at Senda II involving local authorities and interagency coordination push women to use porta potties in the settlement and leave the settlement to wash clothes, pay for showers or bathe in the Rio Grande. 80% of women who bathed in the river reported diarrhea. 2. 60% of Senda II residents reported diarrhea cases and 50% of Rio residents reported diarrhea cases.
Poor sanitation and hygiene	Improving period infrastructure	<ol style="list-style-type: none"> 1. 90% of residents at Senda and 100% of residents at Rio reported there’s no appropriate infrastructure to manage period.
Psychological stress	Camp management and security Access to play spaces for children Access to public spaces for rest and recovery Access to services (medical, legal, religious, social) for culturally and linguistically diverse populations Energy access Access to livelihoods	<ol style="list-style-type: none"> 1. 100% of Haitians are psychologically stressed. 2. 100% of Rio residents are psychologically stressed, while only 60% are psychologically stressed in Senda II. 3. Less than 40% of Rio residents have access to medical care. 4. 80% of children in Senda II spend most of their day in the dedicated play space.. There is no dedicated play space at Rio and residents reported there is “nothing” for them to do. 5. Children at Senda II have access to INGOs dedicated for children, while Rio does not. 6. 40% of Senda II residents spend most of their day in a public space within the settlement. 7. 100% of women rely on access to electricity to check their CBP One App. 8. Only Latina women reported working within the settlement. 9. Services are predominantly provided in Spanish and not Haitian Creole.
Insecurity/lack of safety	Project planning Camp management and security Interagency coordination - Food assistance, Health, WASH, Shelter Cash-based interventions	<ol style="list-style-type: none"> 1. 100% of Haitians do not have access to three meals a day and primarily access food by purchasing outside their settlements, increasing risk of violent encounter. 2. Surrounding land rights of both settlements impede mobility to access spaces around settlements.

Figure 17: Linking settlements to health. Elaborated by: Author 2023.

4.2. S&S and Violence

General Finding 2: Positive impacts of shelter and settlements on safety can be blocked by protection issues related to violence.

In the cases of Senda de Vida II and Rio Camp, positive impacts of shelter and settlements on safety can be blocked by protection issues related to violence. Violence can impede:

1. Interagency coordination, camp management, security and registration
2. Access to services and livelihoods
3. Migrant mobility
4. Migrant health

All women in Rio reported insecurity, lack of safety, psychological stress and lack of privacy, and 60% of women in Senda II openly discussed their concerns over safety.

Violence impedes interagency coordination, camp management, security and registration: Both Reynosa case study settlements exist in violent and geographically contentious spaces, making interagency coordination, camp management, security and registration difficult to formalize. Without these established systems and relationships, providing equitable access to shelter and settlement infrastructure becomes extremely challenging, as seen by the varying shelter typology within Senda de Vida II. Additional adverse effects of low interagency coordination, poor camp management and informal registration processes include: increased security risks, lack of accountability, resource mismanagement, inadequate essential services, social tensions, misinformation dissemination and ineffective responses to emergencies, undermining the safety and well-being of migrants within these spaces.

Violence impedes access to services and livelihoods: Located in vulnerable urban spaces, migrants in Reynosa have little to no access to services outside of their existing settlement. MSF's quarterly report based in Reynosa and Matamoros from April-June 2023, stated that medical services are impeded by insecurity, linking the end of Title 42 with their observed increase in kidnappings in the area. (Médicos sin Fronteras, 2023, p. 7).

For open, informal settlements, security risks of crime, violence and exploitation within these spaces hinder international organizations establishing resource/service distribution centers, leaving migrants without essential services, increasing their vulnerability. International organizations that operate in closed, formal settlements, like Senda II, do not have the proper protection to permanently operate in more dangerous, overlooked spaces like Rio. Church groups and smaller NGOs, like Solidarity Engineering, bear the risks to provide services, distribute NFIs or build WASH infrastructure. Rio residents are left with less services, adding to their financial burden as they spend money on food, shelter, protection and NFIs. In addition to less services, access to livelihoods becomes increasingly difficult as migrants are exposed to violence, extortion, exploitation, legal and regulatory challenges, harassment and social marginalization.

For closed, formal settlements, like Senda II, migrants have a better chance at receiving medical attention, food distribution, shelter distribution, security and child services. Even so, interagency coordinated responses are difficult to formalize as various groups work in the settlement at

varying schedules and for various time periods. Without a singular entity to take full responsibility of the population existing within these spaces, gaps in services and protection get wider, marginalization among certain groups increases risk of conflict, and equitable distribution becomes less attainable. Access to livelihoods within closed, formal settlements is more accessible, as some of the women worked on teams, like the bathroom or kitchen team, within the settlement. Additionally, a small market sells food at the North end of the settlement near the entrance, allowing some residents to sell their products. Ingredients and firewood must be sourced from outside the walls of the settlement, providing a barrier for some women, as leaving the settlement poses risks.

Violence impedes migrant mobility: Although both case studies are walking distance from each other, they are separated by their formality. According to interviews, Senda II residents feel safer in their closed settlement, and Rio residents feel unsafe and insecure in their open settlement. Citing danger in the area, most women interviewed spend most of their day directly outside of their shelter or in a public space within the settlement, avoiding leaving their open or closed settlement unless necessary to access services. Likelihood of violence, particularly in their proximity to the international border and Rio Grande, impedes their mobility outside the settlement, whether at Senda II or Rio Camp.

Violence impedes migrant health: According to MSF, “the increase in recorded events of violence against migrants is alarming, since the negative impact on physical and emotional health is serious and affects different spheres of life,” citing kidnappings, physical violence, testimonies of disappearance, violation of human rights, authority abuse, abuse of power, discrimination in the region, linking violence against migrants to negative health risks. (Médicos sin Fronteras, 2023, p. 7). The Reynosa case study interviews highlight the mental health impacts of violence against migrants with the majority of women in both settlements reporting feeling psychologically distressed. Additionally, Senda II residents reported fear exiting outside the walls of Senda II, as well as fear of security risks within the settlement, with some women isolating themselves from groups as a form of self-protection.

4.3. S&S and Discrimination

General Finding 3: Positive impacts of shelter and settlements can be blocked by discrimination, especially for certain ethnic groups.

The following research shows how discrimination can obstruct the positive impacts of shelter and settlements, particularly affecting specific ethnic groups. In the case of Reynosa, discrimination towards Haitians affected:

1. Shelter typology
2. Shelter costs
3. Settlement location
4. Settlement community dynamics
5. Immigration appointment wait time

Shelter and Discrimination (typology and costs): At Senda II, there are three shelter typologies: the casita, the tent, and the large covered space. Settlement dynamics encourage Haitians to sleep under the large covered space. Haitian women interviewed at Senda slept in tents, and all women in Rio (all Haitian) slept in tents. The majority of Haitians interviewed in both settlements purchased their tent at an average of 600 pesos. Latina migrants interviewed reported sleeping in casitas or tents, and their shelter was distributed to them by camp management or given to them by a previous migrant.

Settlements and Discrimination (location, dynamics and livelihoods): Rio Camp, during this interview period, was predominantly a Haitian informal settlement, and Senda II had a more diverse population. A resident at Rio Camp reported a sense of community and protection amongst their group, reporting that they gather as a community to lead their own Evangelical church service six days/week. However, at Senda II, 30% of women reported racial tensions. Groups predominantly segregate themselves within the settlement. One of the Haitian women interviewed reported that Latinas were given first shower privileges, and that there are separate shower times. Additionally, some Latina migrants reported children playing with toys donated to them; Haitians did not. However, the playground was most cited as the primary space occupied by children, emphasizing the importance of providing accessible, communal play spaces in vulnerable communities without equitable distribution.

CBP One application: Migrants are required to download the CBP One App (U.S. Customs and Border Protection) to seek protection in the United States and acquire an immigration appointment. They can apply every day, and the average wait time as of July 2023 is about four months. Migrants can only apply in certain areas of Mexico, and once accepted for their appointment, cross into the United States. The geolocation feature of the app bottlenecks populations into certain urban areas ill-equipped to handle the migrant fluctuations. Additionally, the appointment can take place in a variety of locations, increasing a migrant's risk of encountering violence along their already exhaustive route. The CBP One App has several issues, "including linguistic ones (error messages appeared in English even after the app was translated, for example), issues with facial recognition technology failing for Black and Indigenous people with dark skin, and other technological glitches" (International Refugee Assistance Project, 2023, p. 13). This technological discrimination can have implications on how long Black and Indigenous people with dark skin will stay in limbo as they wait for their appointment.

4.4. S&S and High Turnover

General Finding 4: Positive impacts of shelter and settlements on protection can be blocked by the high turnover in settlements of vulnerable households.

Fluctuations in migrant populations are linked to U.S. policy, and settlements like Senda II and Rio, in Reynosa, experience a population turnover almost every 4 months. This high turnover transforms these settlements almost into temporary collective shelters without the staff, resources and services available to address diverse populations with varying needs. This high turnover of population:

1. Encourages sharing previously used shelters and bedding
2. Limits economic mobility/livelihoods
3. Limits coordination of services
4. Promotes overcrowding
5. Transitions character of spaces through demographic shifts
6. Challenges sustainable camp management (security/protection)
7. Inhibits sustainable data collection, community engagement, monitoring and impact evaluations

High turnover and shared shelter/bedding: With a frequent turnover of migrant populations, individuals often share shelters and bedding that have been used by previous occupants. Sharing these materials increases the risk of exposure to hygiene-related issues and communicable diseases within settlements, as seen by the direct correlation between using shared bedding and skin rashes at Senda II.

High turnover and limited economic mobility/livelihoods: Without the opportunity to equitably access livelihoods, migrants are left limited and susceptible to exploitation. The lack of economic mobility perpetuates the cycle of poverty, increases their vulnerability, undermines migrant agency and reinforces dependence on insufficient and underfunded humanitarian aid.

High turnover and limited coordination of services: High turnover complicates the coordination and delivery of essential services like healthcare, education and social support. Organizations and individuals must adapt to changing needs of culturally and linguistically diverse populations.

High turnover and overcrowding: Populations in the region are constantly changing and are reported to be in flux. Due to limited space and resources, women reported being told that in case of overcrowding, they may be required to share their tents with new migrants.

High turnover and character of spaces: The constant demographic shift within the settlement alters social dynamics and the cultural fabric of these spaces. Food, language and hygiene practices are among some of the differentiating characteristics that various groups within the settlement discussed. This dynamic environment poses challenges for community cohesion, engagement and accommodation.

High turnover and camp management: Internal security risks must be mitigated, and camp management must constantly adapt their strategies to meet the evolving needs of incoming residents, often with limited resources and a transient staff.

High turnover and data: Rapidly changing demographics within settlements coupled with NGOs working with transient volunteers complicates efforts to collect accurate data, share data, engage with community members and monitor the effectiveness and impact of interventions. This limits stakeholder engagement and their decisions on resource allocation and service delivery.

		<i>SETTLEMENT</i>		<i>SHELTER</i>		<i>ETHNICITY</i>	
		Senda II residents (closed settlement)	Rio residents (open settlement)	Casita users	Tent users	Latinos	Haitians
<i>SHELTER</i>	Overcrowding	50%	100%	40%	81%	37%	100%
	Limited space	50%	100%	40%	81%	37%	100%
	Extreme temperatures	100%	100%	100%	100%	100%	100%
	Poor ventilation	80%	100%	80%	90%	75%	100%
	Structural instability	50%	100%	20%	90%	37%	100%
	Leaks	40%	100%	20%	81%	37%	87%
	Lack of privacy	60%	100%	60%	81%	50%	100%
	Insects	80%	100%	80%	90%	75%	100%
	Blankets (sleeping)	60%	100%	40%	90%	50%	100%
	Rats and small animals	40%	100%	20%	90%	75%	100%
	Shelter distributed	80%	0%	100%	54%	100%	37%
	Shelter purchased	20%	50%	0%	45%	0%	62%
<i>SETTLEMENT</i>	Access to wash/sanitize hands (yes/sometimes)	70%	16%	100%	27%	62%	25%
	Appropriate period infrastructure (yes)	10%	0%	0%	9%	12%	0%
	Feels safe using bathroom at night (yes)	40%	0%	60%	9%	50%	0%
	Primarily bathe in the river (Rio Grande)	40%	0%	60%	9%	37%	12%
	Primarily accesses food from distribution/ NGOs inside settlement	70%	0%	60%	36%	75%	12%
	Primarily accesses food by purchasing inside settlement	30%	0%	40%	9%	37%	0%
	Primarily accesses food by purchasing outside settlement	20%	100%	0%	72%	0%	100%
	Food is accessible 3x day	70%	0%	60%	36%	75%	12%
	Children have access to playground	100%	0%	100%	45%	100%	25%
	Access to medical care (yes/sometimes)	80%	33%	80%	54%	75%	50%
	Electricity accessible (yes)	50%	83%	60%	81%	50%	75%
	Attends church services	20%	83%	40%	45%	25%	62%
<i>HEALTH</i>	Heat exhaustion	100%	100%	100%	100%	100%	100%
	Respiratory illness	60%	16%	100%	18%	62%	25%
	Skin rash	80%	33%	60%	63%	75%	50%
	Insecurity/ lack of safety	40%	100%	0%	90%	25%	100%
	Diarrhea	60%	50%	80%	36%	50%	62%
	Psychological stress	60%	100%	40%	90%	50%	100%
	Poor sanitation and hygiene	20%	100%	0%	72%	12%	87%

Figure 18: Reynosa case studies: consolidated research analysis. Elaborated by: Author 2023.

Chapter 5: Conclusions

This research concludes four general findings:

1. Provision of adequate shelter and settlements has a positive impact upon health.
2. Positive impacts of shelter and settlements on safety can be blocked by protection issues related to violence.
3. Positive impacts of shelter and settlements can be blocked by discrimination, especially for certain ethnic groups.
4. Positive impacts of shelter and settlements on protection can be blocked by the high turnover in settlements of vulnerable households.

The Reynosa case studies interrogates how practitioners can promote equitable access to shelter and settlements assistance for diverse transient populations in protracted, underfunded, under researched emergency regions in urban spaces with low capacity interagency cooperation. The following list of recommendations emphasizes the varying scales, relationships and systems at play in humanitarian shelter and settlements assistance.

For practitioners:

Addressing humanitarian shelter and settlements at the urban scale: The Latin American migrant crisis is an urban crisis. Humanitarian shelter and settlements assistance has the opportunity to operate at the urban scale and innovate regional shelter and settlement approaches, prioritizing the creation of safe spaces within the urban fabric. Shelters and settlements along migrant routes act as temporary collective shelters with limited resources and services available. Working with local governments to contextually understand the urban spaces available creates economic opportunities for improved project planning, access to services, access to livelihoods, community building, local infrastructure upgrading, and sustainable accountability of vulnerable populations. Addressing urban conditions at varying scales allows humanitarian shelter and settlements assistance to prioritize safety, equity and stability of migrants, rather than leave populations more exposed to violence, discrimination and uncertainty.

Prioritizing public space and play space: Public space and play space accessibility serve as vital proxy indicators of community health, promoting social connections and addressing the mental and physical health needs of both children and adults. By providing spatial opportunities for rest, recovery and activity, shelter and settlements assistance directly impacts the physical, mental and cognitive development of children, which in turn increases their happiness, well-being and sense of normalcy. Healthier and happier children contribute to the stability, resilience and cohesion of communities.

Increasing funding: Local grassroots initiatives, church groups, and NGOs work diligently to provide migrants with the resources they need. Bringing aid, collecting data and assessing impact require the capacity and resources to develop sustainable systems that address the local context.

Sharing interagency data: Organizations and camp management work in the same spaces together, often repeating work. Developing relationships and systems in violent areas are crucial to delivering equitable aid. Developing systems for agencies to share data allows for cross-analysis of sectors to create accurate needs assessments of settlements.

Developing sustainable collective impact assessments: With dynamic population shifts in various spaces, collaborative impact assessments can alleviate the burden that smaller organizations bear as they complete their quarterly assessments. Traditional assessment methods struggle to capture the full scope of impact with the constant flux of populations. Collaborative impact assessments allow various organization

to share resources and data and develop more comprehensive evaluations that more holistically understand community needs.

Advocating for immigration policy reform: U.S. immigration policy is directly correlated to the development of formal and informal migrant settlements along the border, affecting the health of the thousands who wait and the millions who cross. Policies need to address the vulnerabilities of millions traversing through Latin America, establishing spatially safe opportunities to seek refuge.

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