

**A quantitative head count of children at risk of  
street-related behaviors and dangers in Taroudannt,  
Morocco**

**Jacob Perry**

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## Introduction to the research

The purpose of this research project was to perform a quantitative head count of children at risk of street-related behaviors<sup>1</sup> and dangers in Taroudannt, Morocco<sup>2</sup>. Moroccan Children's Trust (MCT), a UK registered charity, and Groupe Maroc Horizons (GMH), a Moroccan NGO, have partnered to deliver “a structured holistic support project for children in street situations and those at risk of developing street connections” in Taroudannt (Moroccan Children's Trust, 2010). The two organizations hosted researcher Jacob Perry from the University of Arkansas Clinton School of Public Service to lead the project. The project sought to quantify and categorize the street-connected children in Taroudannt in order to inform future program design and development in the host organizations. The expected outcome of the research was a comprehensive document presenting data on street-connected children and discussing the significance of the results in order to make recommendations to the host organizations.

Without a clear idea of the number of street-connected children in Taroudannt or their whereabouts within the town, MCT and GMH are limited in their ability to understand the scale of the problem and design future programs to address the specific needs of the children. Therefore, it is necessary for the two organizations to have comprehensive data on the population of street children in Taroudannt – including information on their age, gender, and street-related behavior – in order for the organizations to maximize their effectiveness, human resources, and the reach of their services. It is also beneficial for MCT and GMH to have hard data on their target population when applying for grants, fundraising, and communicating the need to the community and the Moroccan government.

According to the United Nations Convention on the Rights of the Child (CRC), children are a vulnerable population with “particular rights that recognize their special need for protection” (UNICEF, 2013). The Convention declared that children have the right to survival and development, protection, and participation such that all

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<sup>1</sup> For the purposes of this report and the organizations hosting this research project, the target population will most often be referred to as ‘street-connected children,’ but ‘street children’ may also

<sup>2</sup> Taroudannt is situated in the south of Morocco with a population of 69,489 according to the 2004 census (Royaume du Maroc Ministère de l'Intérieur, 2010).

children are afforded the opportunity to flourish without resources, abuse, or silence impeding their self-determination (UNICEF, 2013). Though Morocco is a signatory to the Convention, it faces challenges to meeting its obligations under the provisions of the agreement. An analysis performed by UNICEF in 2013 on the situation of children in Morocco found that Morocco needs to increase its “understanding and identification of necessary actions to face the problems affecting the fulfilment [of the stipulations laid out in the Convention]” (author’s translation) concerning the protection of Moroccan children (UNICEF, n.d.). For this reason it is important that MCT and GMH continue to work to understand the situation of street-connected children in Taroudannt and provide necessary intervention services.

As in many countries across the world, poverty and harmful home environments force Moroccan children to seek alternative lifestyles in the street, which often leads to involvement in crime and other illegal and personally harmful activities (Moroccan Children's Trust, 2010). Children who spend significant time on the street in Taroudannt are in similar situations to street children elsewhere in Morocco. According to Center Afaq social workers, street children in Taroudannt are often lacking supportive family structures or must earn money on the street because their families are in financial and/or health distress. However, since no data existed at the outset of this study on the street children population in Taroudannt, researchers took a look at published studies on the background and categorization of street children in other countries.

Researchers discovered that street children have many similarities across countries, including pernicious and deteriorated family units, lack of educational opportunities or nonattendance, and poverty. The studies took various approaches to quantitatively and qualitatively assess the situation of street children, and each study provided a glimpse into the complexities and limitations of researching this vulnerable population with often low public visibility. The advantages of a qualitative approach include increased accuracy of determining the target population and more holistic and specific data on these individuals (Hatloy and Huser, 2005). The advantages of a quantitative approach include enumerators participating unobtrusively (Ford, 2012) and requiring fewer resources for the completion of the research.

There are limitations to both headcount approaches however, as found in studies performed in Ghana, India, and Sierra Leone: the risk of double counting and miscounting due to the mobility of the target population (Ford, 2012); the risk of stigmatizing the target individuals (Department of Social Welfare, Ricerca e Cooperazione, Catholic Action for Street Children, & Street Girls Aid, 2011); the risk of misrepresentation due to the target individuals' misunderstanding, fearing, or refusal to honestly answer research questions (Bhaskaran, R., and Mehta, B., 2011); the risk that when children from the target population were used to recruit others, research does not represent a random sample and data from individuals who did not fit the requirement of the target population is included in the sample (Hatloy and Huser, 2005). It is important to remember that such studies represent a temporary glimpse at a transient population and therefore cannot be understood as final, fixed figures. Instead, the results of headcount studies can serve to help governmental and civil society organizations assess the current situation of a population in order to guide program development, resource allocation, and policy creation to address the needs of the researched population.

Though this study in Morocco is similar to previous headcounts of street children, it contributes meaningfully to the field because of unique religious, cultural, and logistical factors. The scope of this study was much smaller than others in the literature and used only three researchers to cover a small area with a population of about 70,000 (Royaume du Maroc Ministère de l'Intérieur, 2010). Because of the small population range of the study, the two research assistants native to Taroudannt had pre-existing knowledge of the street-connected youth in the town. Researchers assumed this would assist them in identifying and correctly categorizing the target population during the study.

This study is also the only quantitative headcount study performed in an Arab/Muslim country in North Africa or the Middle East, meaning the cultural and religious settings are distinct from other headcount studies. Though an extensive qualitative study on the street children in Cairo, Egypt, a city with similar religious and cultural traditions to Taroudannt, showed similarities to the findings of this study – namely that over 90% of the children researched were boys – the scope of that study was not quantitative and did not attempt to assess the entire population of the

study field (World Food Programme, United Nations Children's Fund, & United Nations Office for Drug Control and Crime Prevention, 2001).

As culture plays a role in determining what behaviors are considered inappropriate and indicative of street-related activity, it is important to understand cultural context, especially when researchers use strictly observational methods. This study relied on the assistant researchers' familiarity with local societal norms to determine a curfew after which it was culturally inappropriate for minors to be in the street, even if engaged in innocuous behaviors. Researchers also included a category for children unaccompanied by an adult witnessed in high-risk locations during normal activity hours because of the cultural implications of unaccompanied children found in such areas.

## **Methodology**

In order for an organization to effectively implement programs to address the challenges faced by street-connected children, an important first step is to define the criteria for a street-connected child (Hatloy & Huser, 2005). This is however a complex issue, as it is difficult to specify what qualifies a child as 'street-connected'. First, researchers must determine of what the child is at risk. Second, to consider a child street-connected incurs a judgment about the child's situation, history, and ability to overcome difficulties and challenging life circumstances. Neither poverty, geographic location, nor activity automatically qualifies a child as generally street-connected. Rather, a combination of behaviors and life circumstances contribute to the amount of risk a child faces. For the purposes of the organizations hosting this research, the target population is defined as street-connected children at risk of succumbing to injurious street-related behavior such as [not limited to] begging, stealing, using and selling drugs, and other illegal and harmful activity, or those who spend all or a significant portion of their time on the street (Sarah Sibley, personal communication, April 11, 2013).

In order to craft a methodology for this project the lead researcher met with MCT staff to discuss the organization's needs, desires, and limitations that would

affect the research. The lead researcher and MCT staff performed a literature review of head count strategies and determined that a quantitative head count strategy was the preferable approach due to constraints of human resources, time, and legal authorization that the research team faced. MCT staff and the lead researcher consulted with a representative of StreetInvest, an NGO that developed a quantitative head count strategy, to receive guidance on developing a methodology that suited MCT and GMH's capacity.

The research team met to discuss all the possible behaviors, traits, and activities of street-connected children in Taroudannt. From the results of this discussion, the lead researcher designed general head count categories based on those used by StreetInvest in Sierra Leone (Ford, 2012) and presented them to the team for further discussion and revision. The team decided on four categories<sup>3</sup>: 1) physical needs neglected; 2) history already known by social workers; 3) permanently or principally in the street; 4) activities witnessed. The first category aimed to include children whose physical needs were visibly not met but who did not show signs of street-related behavior. The second category was designed to include children whose cases were already known by Center Afaq social workers – even when these children were not observed engaging in street-related behavior – in order to get the most representative count of the population of street-connected children in Taroudannt. The third category sought to include children, regardless of their activity, who were observed unaccompanied by an adult after eleven at night, the time determined by the research team to be a culturally appropriate curfew. The fourth category included a comprehensive list of the activities and behaviors that the research team noted during group discussion as observable street-related behavior in order to count children actively engaged in street-connected activities.

The team decided that it was important to distinguish between the first and fourth categories because these two groups of children may be exposed to different risks. The risks and dangers facing street-connected children are many, and include an array of violations to their rights: 1) their right to freedom from violence is abused by many groups including police; 2) their right to access public services is lost due to lack of legal documentation or systemic discrimination; 3) their status as right-

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<sup>3</sup> See appendix for full list of street-connected categories and sub-categories



holders is often replaced with a perception of them as victims or delinquents, titles that often perpetuate the abuses these children suffer (UN Office of the High Commissioner for Human Rights, 2012). Moreover, street-connected children are at an increased risk of physical and psychological health problems because of their unsanitary and socially deleterious environments (UN Office of the High Commissioner for Human Rights, 2012). Thus, by separating categories one and four into activities witnessed and physical characteristics observed, researchers may be able to better predict the unique dangers street-connected children face.

The research team also decided to divide the categories into three age ranges – 0-6 years, 7-12 years, and 13-17 years – to reflect the organizations’ approach to children of various ages. Finally, the team felt it necessary to separate the children by gender to reflect the difference in risk the two genders face.

The lead researcher and two social workers scheduled a week of practice counts to test the project methodology and scope high-risk places in order to organize the town into zones. After the first week of pilot counts, the research team met and revised the categories and methodology and created a list of places in which to perform the counts.

The GMH director and social workers used their knowledge of the city and the population of local street children to establish 19 places in Taroudannt in which to perform the counts. The team further divided these places into five zones in which the research team could perform a count in one hour, which was the amount of time decided as sufficient to get a representative number of street-connected children in each zone<sup>4</sup>.

The team determined that a second week of practice counts was needed to solidify methodology specifics before beginning the official head counts. Upon completion of the second week of practice counts the research team finalized the details of the methodology and set a schedule to complete the official counts within a three-week period.

It was determined that morning, afternoon, and night counts were necessary to observe children in all street-connected categories because of the different activities that drew children to the street at different times. During practice counts the

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<sup>4</sup> See appendix for a map of Taroudannt divided into the five zones.

research team noticed that fewer kids were visible in the street during the morning, so it was determined that in each zone two counts would be performed in the afternoon and night and just one in the morning. This way the morning counts did not carry equal weight in the final calculation and thus misrepresent the actual figure of street-connected children.

It was determined that calculating the final estimates of street-connected children would be dependent on researchers' observations during the counts. If the same children were observed in the same zones during each of the three count times, then researchers would take the average of all counts for each zone to calculate the total children for that zone. If the same children were observed during counts at the same time (e.g. during both afternoon counts) but not during counts at different times (e.g. different children observed during the afternoon and night counts), then researchers would take the average of counts from each time and add them together (e.g. morning count plus average of afternoon counts plus average of night counts) to calculate the total estimate. If different children were observed during each count in a zone, then researchers would add the highest counts together from each time (e.g. morning count plus highest afternoon count plus highest night count) to calculate the most accurate estimation of the population of street-connected children in a zone.

The lead researcher performed the counts for three weeks with two Center Afaq social workers who split the counts between each other. After completion of the first two weeks of counts with the first social worker, the researcher met with both social workers to discuss observations and methods used during the counts so that the second social worker would be informed on research methodology and notable observations. This meeting was intended to maintain the highest possible level of consistency in the research methodology.

During the first week of research counts the researchers observed children who were wandering around without supervision or an apparent objective during the daytime, and the social worker identified these children as street-connected. However, since these children did not fit into any of the four categories, the team decided to add a fifth category – Unaccompanied by an adult in high-risk areas – and

not count these children as street-connected but rather as being at risk of becoming street-connected.

Researchers most often used mopeds and bicycles to perform head counts, but they occasionally performed the counts on foot. Due to certain zones becoming dangerous at night, researchers could not casually stroll through these areas for an hour. Instead, researchers passed through these zones at a quicker pace at night and made two rounds – instead of one like they did during the morning and afternoon rounds – in order to spend an hour on the count.

This methodology relies heavily on the social workers' expertise concerning the lay of the city and the local population, especially children at risk of engaging in risky and dangerous street-related behaviors. In order to accurately determine if a child observed during a count is street-connected, the researchers must be familiar with cultural and social factors that influence 'normal' behavior for children. Social workers' expertise is also key to determining the age of a child, but it is accepted that a strictly observational method is not 100% accurate in determining any factor regarding a child.

## Results and Analysis of Headcount Data

There are two sets of data. Set One includes all the street-connected children counted during data collection. Set Two excludes children from category 5, who were not classed as street-connected but 'as being at risk of becoming street connected'.

The research design categorised the children initially into 4 categories (e.g. physical needs neglected; engaging in activity). However, due to the small numbers of children that fell into these separate categories, it was not possible to carry out analysis. Social workers agreed that based on their experience, more street-connected children are present in Taroudannt than were witnessed in these counts. Social workers suggested this may be due to many of the children engaging in activities that are difficult to witness using the methods prescribed for these counts or in areas with low accessibility for the researchers<sup>5</sup>.

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<sup>5</sup> The formulation of results and the analysis of headcount data in this section was compiled and carried out by Mandie Iveson, edited by Jacob Perry

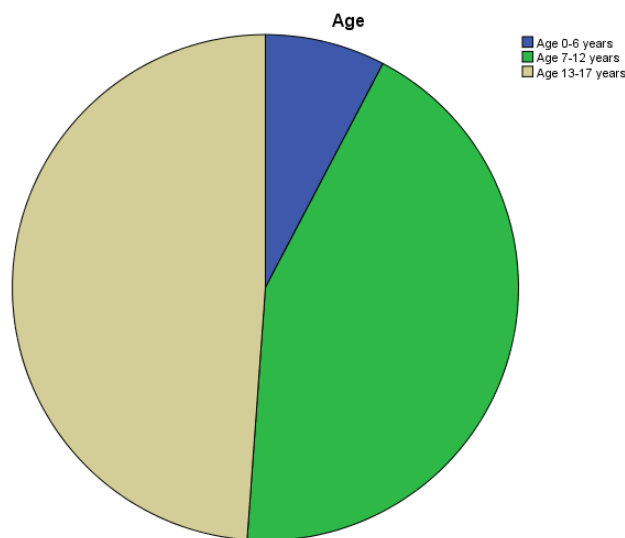
**Figure 1: Age of Children**

**Age**

	Frequency	Percent	Valid Percent	Cumulative Percent
Age 0-6 years	50	10.8	10.8	10.8
Age 7-12 years	209	45.0	45.0	55.8
Age 13-17 years	205	44.2	44.2	100.0
Total	464	100.0	100.0	

**Age – excluding Category 5**

	Frequency	Percent	Valid Percent	Cumulative Percent
Age 0-6 years	20	7.7	7.7	7.7
Age 7-12 years	113	43.5	43.5	51.2
Age 13-17 years	127	48.8	48.8	100.0
Total	260	100.0	100.0	



The more frequent age groups found are the 7-12 and 13-17 years. In the data including category 5, there is very little percentage difference between the two groups. When category 5 is excluded from the data (shown in the pie chart), the 13-17 age group is just over 5 percentage points higher, which shows this age group represents just under 50% of the total number of street connected children.

**Figure 2: Gender of Children**

**Gender**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Boy	443	95.5	95.5	95.5
Valid Girl	21	4.5	4.5	100.0
Total	464	100.0	100.0	

**Gender – excluding Category 5**

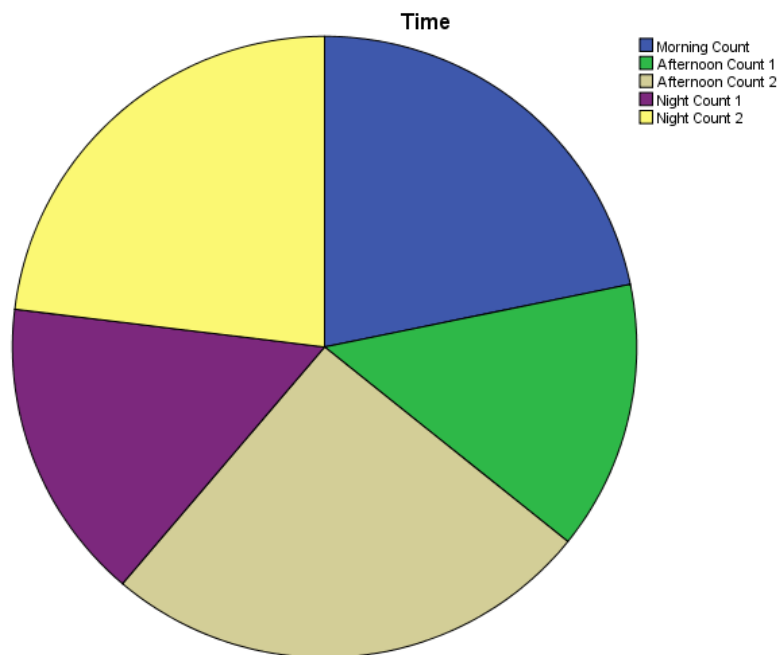
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Boy	248	95.4	95.4	95.4
Valid Girl	12	4.6	4.6	100.0
Total	260	100.0	100.0	

There is virtually no difference in the frequency of boys and girls between the two sets of data. Girls make up less than 5% of the total number of children counted. This could be because street connected girls' activities are not visible from the street (e.g. working inside homes).

**Figure 3: Variations in Time of Count**

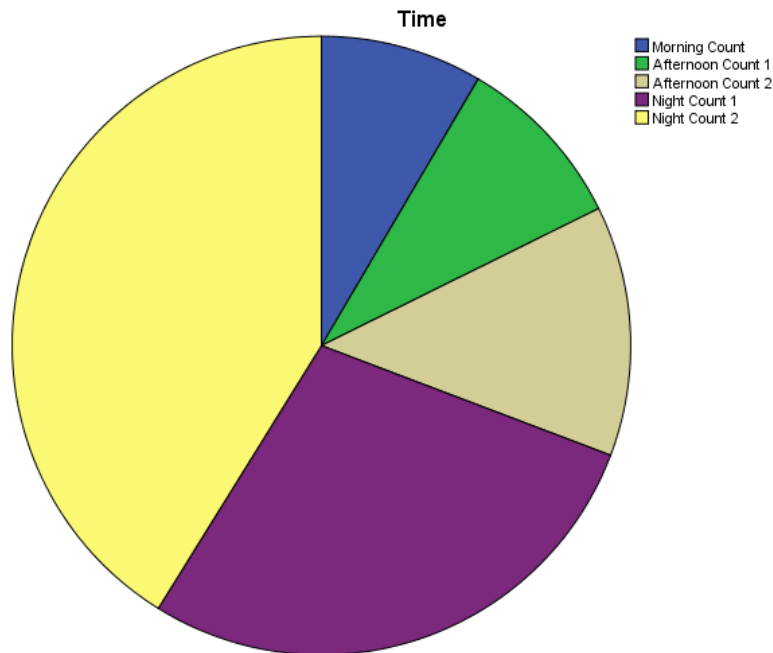
**Time of Day**

	Frequency	Percent	Valid Percent	Cumulative Percent
Morning Count	101	21.8	21.8	21.8
Afternoon Count 1	65	14.0	14.0	35.8
Afternoon Count 2	118	25.4	25.4	61.2
Night Count 1	73	15.7	15.7	76.9
Night Count 2	107	23.1	23.1	100.0
Total	464	100.0	100.0	



**Time of Day – excluding Category 5**

	Frequency	Percent	Valid Percent	Cumulative Percent
Morning Count	22	8.5	8.5	8.5
Afternoon Count 1	24	9.2	9.2	17.7
Afternoon Count 2	34	13.1	13.1	30.8
Night Count 1	73	28.1	28.1	58.8
Night Count 2	107	41.2	41.2	100.0
Total	260	100.0	100.0	



In the first data set including category five, the morning count, afternoon count 2, and night count 2 are the times of day when the highest proportion of children were counted: 21.8%, 25.4% and 23.1% respectively. The distribution for the other two counts is very similar with 14% of children being counted in the first afternoon count and 15.7% in the first night count. However, when category five is excluded in the second set, the two night counts contain the highest proportion of children counted at 28.1% and 41.2%.



**Figure 4: Count Results Per Zone**

**Zone**

	Frequency	Percent	Valid Percent	Cumulative Percent
Zone A	133	28.7	28.7	28.7
Zone B	94	20.3	20.3	48.9
Zone C	50	10.8	10.8	59.7
Zone D	90	19.4	19.4	79.1
Zone E	97	20.9	20.9	100.0
Total	464	100.0	100.0	

**Zone – excluding Category 5**

	Frequency	Percent	Valid Percent	Cumulative Percent
Zone A	63	24.2	24.2	24.2
Zone B	55	21.2	21.2	45.4
Zone C	48	18.5	18.5	63.8
Zone D	35	13.5	13.5	77.3
Zone E	59	22.7	22.7	100.0
Total	260	100.0	100.0	

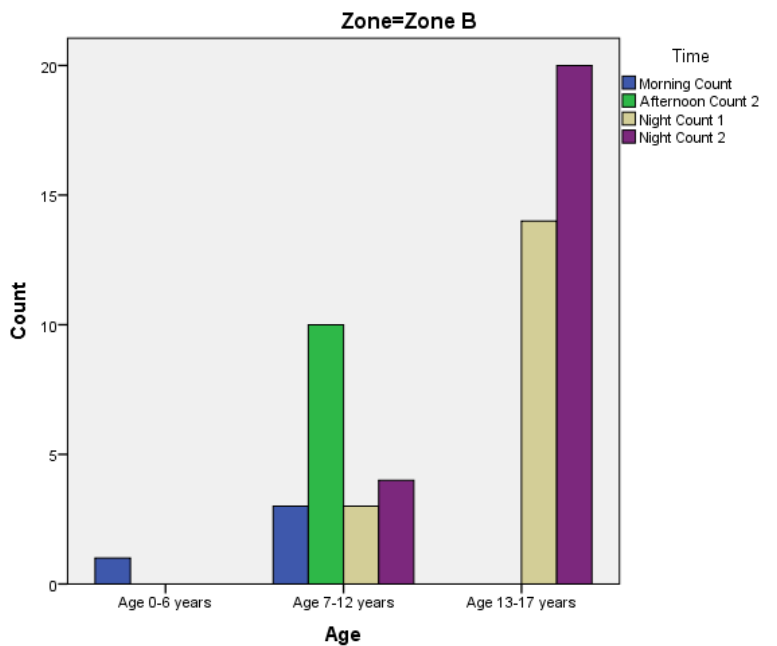
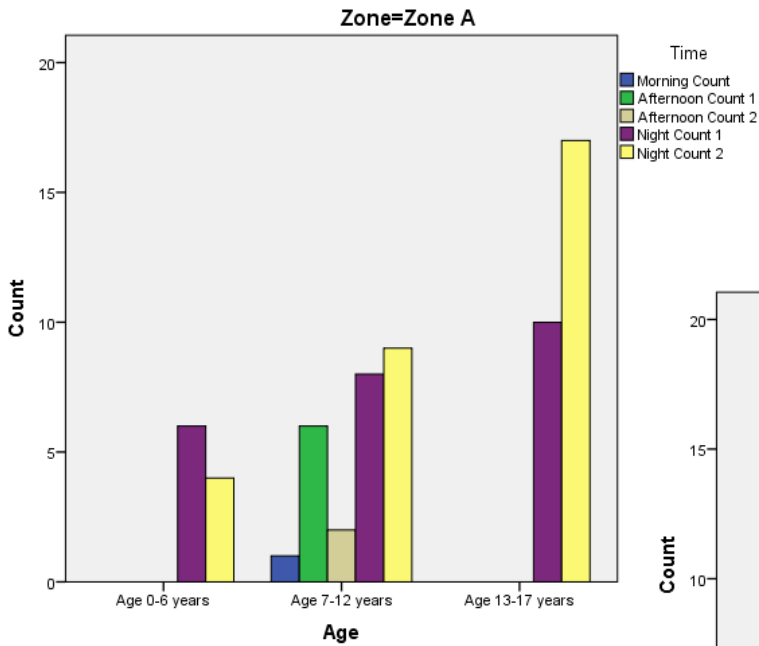
Data set one shows that nearly a third of all children were counted in zone A, with approximately equal proportions counted in zones B, D and E with just over 10% of children (N=50) observed in zone C. When category 5 is excluded, the number of children observed in zone D drops dramatically (N=55), which suggests that zone D may contain more children working during the day than other zones.

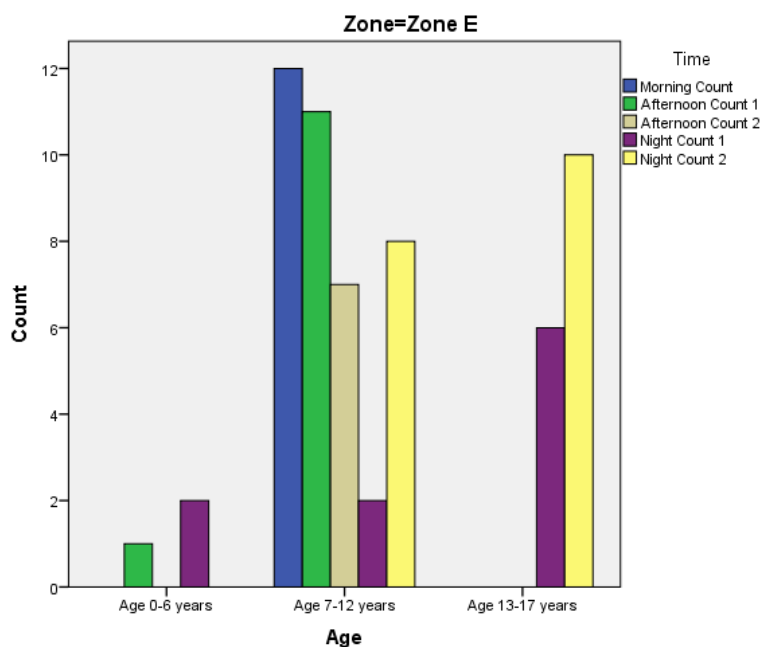
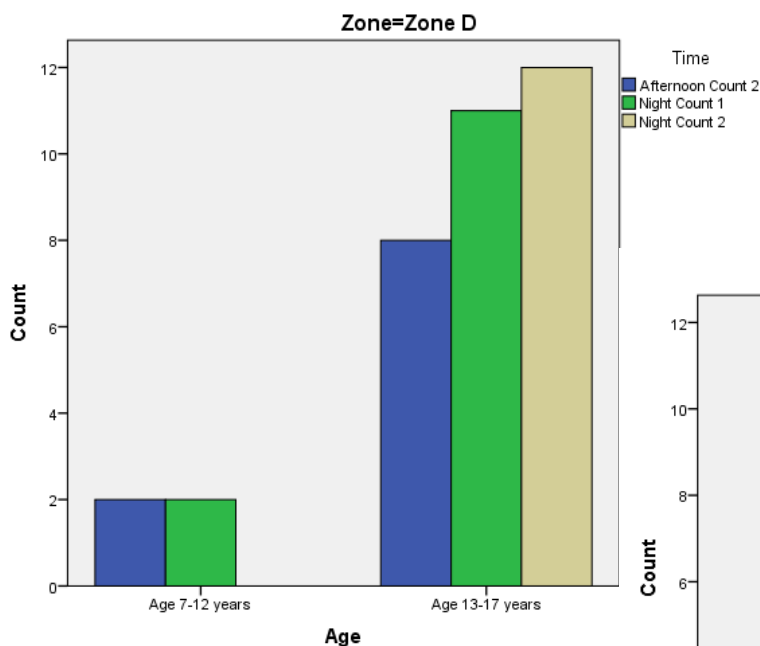
**Figure 5: Age \* Time \* Zone Cross-tabulation**

**Age \* Time \* Zone Cross-tabulation – excluding Category 5**

Zone		Time					Total	
		Morning Count	Afternoon Count 1	Afternoon Count 2	Night Count 1	Night Count 2		
Zone A	Age 0-6 years	Count	0	0	0	6	4	10
		% within Age	0.0%	0.0%	0.0%	60.0%	40.0%	100.0%
	Age 7-12 years	Count	1	6	2	8	9	26
		% within Age	3.8%	23.1%	7.7%	30.8%	34.6%	100.0%
	Age 13-17 years	Count	0	0	0	10	17	27
		% within Age	0.0%	0.0%	0.0%	37.0%	63.0%	100.0%
	Total	Count	1	6	2	24	30	63
		% within Age	1.6%	9.5%	3.2%	38.1%	47.6%	100.0%
Zone B	Age 0-6 years	Count	1		0	0	0	1
		% within Age	100.0%		0.0%	0.0%	0.0%	100.0%
	Age 7-12 years	Count	3		10	3	4	20
		% within Age	15.0%		50.0%	15.0%	20.0%	100.0%
	Age 13-17 years	Count	0		0	14	20	34
		% within Age	0.0%		0.0%	41.2%	58.8%	100.0%
	Total	Count	4		10	17	24	55
		% within Age	7.3%		18.2%	30.9%	43.6%	100.0%
Zone C	Age 0-6 years	Count	1	2	0	1	2	6
		% within Age	16.7%	33.3%	0.0%	16.7%	33.3%	100.0%
	Age 7-12 years	Count	3	4	5	2	9	23
		% within Age	13.0%	17.4%	21.7%	8.7%	39.1%	100.0%
	Age 13-17 years	Count	1	0	0	6	12	19
		% within Age	5.3%	0.0%	0.0%	31.6%	63.2%	100.0%
	Total	Count	5	6	5	9	23	48
		% within Age	10.4%	12.5%	10.4%	18.8%	47.9%	100.0%
Zone D	Age 7-12 years	Count			2	2	0	4
		% within Age			50.0%	50.0%	0.0%	100.0%
	Age 13-17 years	Count			8	11	12	31
		% within Age			25.8%	35.5%	38.7%	100.0%
	Total	Count			10	13	12	35
	% within Age			28.6%	37.1%	34.3%	100.0%	

Zone E	Age 0-6 years	Count	0	1	0	2	0	3
		% within Age	0.0%	33.3%	0.0%	66.7%	0.0%	100.0%
	Age 7-12 years	Count	12	11	7	2	8	40
		% within Age	30.0%	27.5%	17.5%	5.0%	20.0%	100.0%
	Age 13-17 years	Count	0	0	0	6	10	16
		% within Age	0.0%	0.0%	0.0%	37.5%	62.5%	100.0%
Total	Count	12	12	7	10	18	59	
	% within Age	20.3%	20.3%	11.9%	16.9%	30.5%	100.0%	
Total	Age 0-6 years	Count	2	3	0	9	6	20
		% within Age	10.0%	15.0%	0.0%	45.0%	30.0%	100.0%
	Age 7-12 years	Count	19	21	26	17	30	113
		% within Age	16.8%	18.6%	23.0%	15.0%	26.5%	100.0%
	Age 13-17 years	Count	1	0	8	47	71	127
		% within Age	0.8%	0.0%	6.3%	37.0%	55.9%	100.0%
Total	Count	22	24	34	73	107	260	
	% within Age	8.5%	9.2%	13.1%	28.1%	41.2%	100.0%	



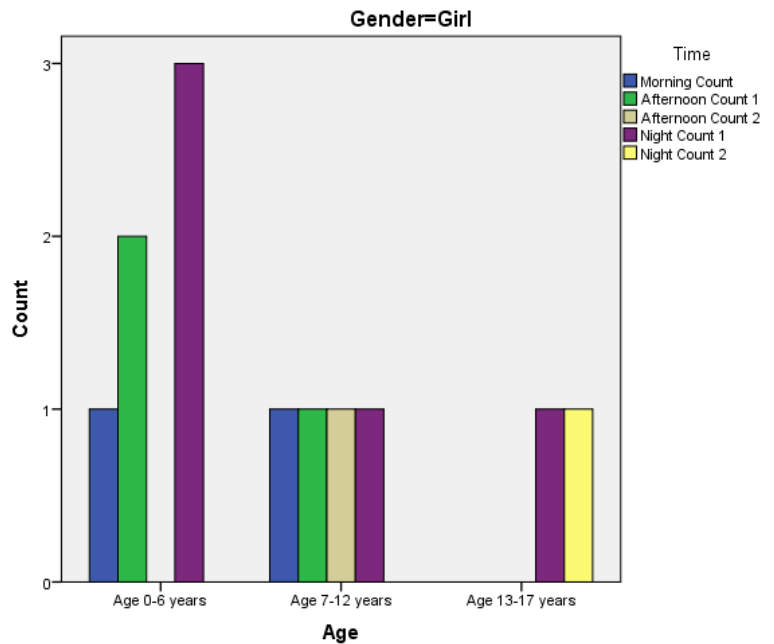
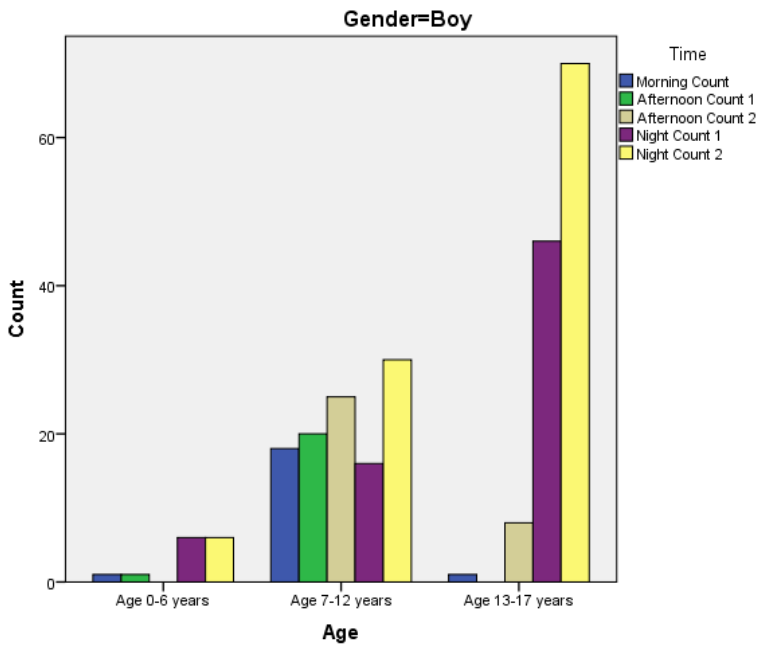


When analysed per zone, the data show that all children in the age groups 0-6 years and 13-17 years counted in zone A were found during the night counts, whereas 35% of children 7-12 were counted during the morning and afternoon counts. In zone B, all children 13-17 counted were found at night whereas no children 0-6 and only 35% of children 7-12 were counted at night. Similarly in zone C the oldest age group (13-17) were counted mostly at night (95%) while the younger age groups were counted fairly evenly during morning, afternoon, and evening counts. No children 0-6 years were counted in zone D, while 89% of those counted in this zone were 13-17 years. As was the trend in zones B and C, in zone E all children 13-17 years were counted at night while the other two age groups were counted significantly during the morning and afternoon counts. Furthermore, 68% of children counted in zone E were between 7-12 years. Children 13-17 years old were mostly found in zones A,B, and D (72%).

**Figure 6: Age \* Time \* Gender Cross-tabulation**

**Age \* Time \* Gender Cross-tabulation – excluding Category 5**

Gender			Time					Total
			Morning Count	Afternoon Count 1	Afternoon Count 2	Night Count 1	Night Count 2	
Boy	Age 0-6 years	Count	1	1	0	6	6	14
		% within Age	7.1%	7.1%	0.0%	42.9%	42.9%	100.0%
	Age 7-12 years	Count	18	20	25	16	30	109
		% within Age	16.5%	18.3%	22.9%	14.7%	27.5%	100.0%
	Age 13-17 years	Count	1	0	8	46	70	125
		% within Age	0.8%	0.0%	6.4%	36.8%	56.0%	100.0%
	Total	Count	20	21	33	68	106	248
		% within Age	8.1%	8.5%	13.3%	27.4%	42.7%	100.0%
Girl	Age 0-6 years	Count	1	2	0	3	0	6
		% within Age	16.7%	33.3%	0.0%	50.0%	0.0%	100.0%
	Age 7-12 years	Count	1	1	1	1	0	4
		% within Age	25.0%	25.0%	25.0%	25.0%	0.0%	100.0%
	Age 13-17 years	Count	0	0	0	1	1	2
		% within Age	0.0%	0.0%	0.0%	50.0%	50.0%	100.0%
	Total	Count	2	3	1	5	1	12
		% within Age	16.7%	25.0%	8.3%	41.7%	8.3%	100.0%
Total	Age 0-6 years	Count	2	3	0	9	6	20
		% within Age	10.0%	15.0%	0.0%	45.0%	30.0%	100.0%
	Age 7-12 years	Count	19	21	26	17	30	113
		% within Age	16.8%	18.6%	23.0%	15.0%	26.5%	100.0%
	Age 13-17 years	Count	1	0	8	47	71	127
		% within Age	0.8%	0.0%	6.3%	37.0%	55.9%	100.0%
	Total	Count	22	24	34	73	107	260
		% within Age	8.5%	9.2%	13.1%	28.1%	41.2%	100.0%

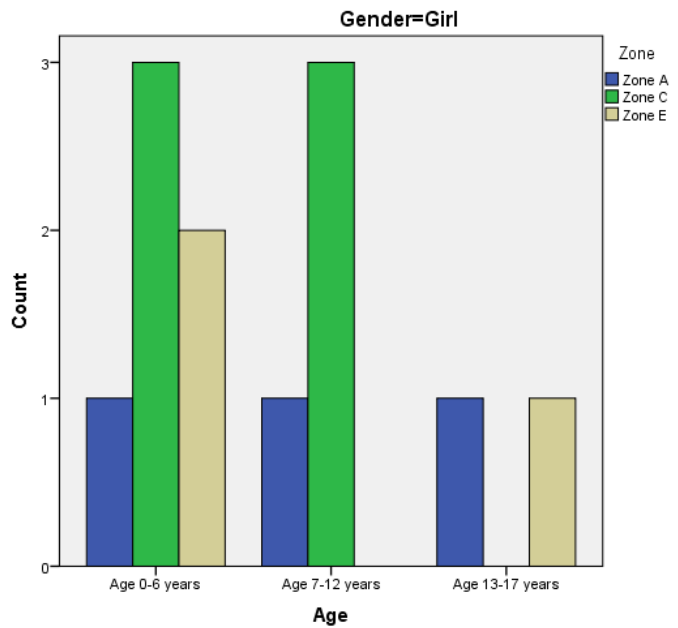
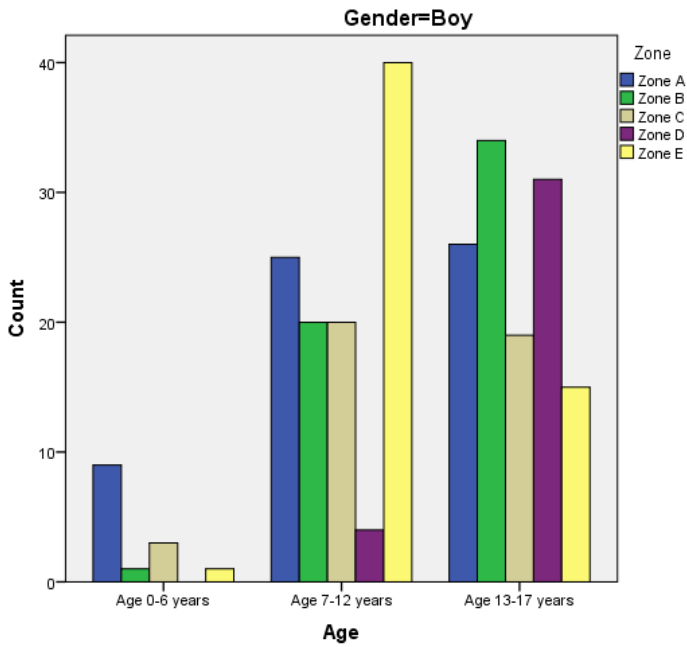


The above table shows that for all age groups 69.3% of children counted were found at night, with the 13-17 age group being counted more frequently at night than the younger groups (93%). Only 7% of children 13-17 were counted in the morning and afternoon, while 25% of 0-6 age children and 58% of 7-12 age children were counted during these times. Overall, more children were counted during the second afternoon and night counts, which may indicate a discrepancy in the counting methods performed on these counts.

**Figure 7: Age \* Zone \* Gender Cross-tabulation**

**Age \* Zone \* Gender Cross-tabulation – excluding Category 5**

Gender			Zone					Total
			Zone A	Zone B	Zone C	Zone D	Zone E	
Boy	Age 0-6 years	Count	9	1	3	0	1	14
		% within Age	64.3%	7.1%	21.4%	0.0%	7.1%	100.0%
	Age 7-12 years	Count	25	20	20	4	40	109
		% within Age	22.9%	18.3%	18.3%	3.7%	36.7%	100.0%
	Age 13-17 years	Count	26	34	19	31	15	125
		% within Age	20.8%	27.2%	15.2%	24.8%	12.0%	100.0%
	Total	Count	60	55	42	35	56	248
		% within Age	24.2%	22.2%	16.9%	14.1%	22.6%	100.0%
Girl	Age 0-6 years	Count	1		3		2	6
		% within Age	16.7%		50.0%		33.3%	100.0%
	Age 7-12 years	Count	1		3		0	4
		% within Age	25.0%		75.0%		0.0%	100.0%
	Age 13-17 years	Count	1		0		1	2
		% within Age	50.0%		0.0%		50.0%	100.0%
	Total	Count	3		6		3	12
		% within Age	25.0%		50.0%		25.0%	100.0%
Total	Age 0-6 years	Count	10	1	6	0	3	20
		% within Age	50.0%	5.0%	30.0%	0.0%	15.0%	100.0%
	Age 7-12 years	Count	26	20	23	4	40	113
		% within Age	23.0%	17.7%	20.4%	3.5%	35.4%	100.0%
	Age 13-17 years	Count	27	34	19	31	16	127
		% within Age	21.3%	26.8%	15.0%	24.4%	12.6%	100.0%
	Total	Count	63	55	48	35	59	260
		% within Age	24.2%	21.2%	18.5%	13.5%	22.7%	100.0%



The above three-way contingency table shows the distribution of age group per zone and divided by gender. Due to the small percentage of girls, the analysis will concentrate on the total rather than analysing separately girls and boys. As the table shows, children seem to congregate in specific zones according to their age



category. Children from 0-6 years old were mostly found in zone A (50%) and zone C (30%), children 7-12 were found more frequently in zone E (35%), and children 13-17 were found fairly evenly throughout the zones but comprised 89% of children found in zone D.

## **Discussion**

This research project sought to produce a head count number that accurately represents the minimum number of street-connected children in Taroudannt, Morocco. There were logistical, methodological, and communicative limitations to the study, but the researchers feel the project accomplished its objective. The project produced a practical data set that the host organizations can use for future program design and implementation to address the needs of the population of street-connected children in Taroudannt.

Both quantitative and qualitative head count methods are limited in their ability to accurately count a target population. It is especially difficult to count street-connected children because of their high mobility and the elusive nature of their activities. Because of its use of a strictly observational methodology, this study was limited because researchers had to guess the age of children and whether children witnessed after 23:00 or in high-risk zones were engaged in normal activities or should be counted in the respected categories. The lead researcher relied on the social workers' knowledge of 'normal' child activity in both the situations mentioned above in order not to overshoot the estimation of street-connected children. However, it is impossible to be 100% sure of a child's situation simply by observing the child's activities. Likewise, an observational head count is limited in its ability to explain why children are engaged in street-connected behavior. Subsequent discussion in this report of the children's situations is based on cultural knowledge and observations made by the researchers with heavy reliance on the social workers' intimate knowledge of the local culture and the typical activity of children. This study was also limited because many street-connected children may have been sleeping, at home, or engaged in normal activities during the time of the count, and

therefore researchers would not have counted these children. Many of the street-connected activities listed in category four are difficult to witness because children do not engage in them publicly or during long periods of time. The 'girls working as maids' sub-category would have been especially difficult to witness as these girls work in the residences of their clients.

Though each count was scheduled to last one hour, several counts lasted as short as 45 minutes due to researchers having schedule conflicts. During these counts, researchers may have counted more children if the count had lasted an hour as prescribed.

The study was also limited by human resource constraints because the social workers performing the counts already had full-time work schedules in addition to the counts. This made it difficult for the social workers to be available at the scheduled count times and it may have caused the social workers to feel overwhelmed and uninspired to thoroughly perform the counts.

The research team failed to perform the desired number of practice counts during the final week of preparation, and this produced limitations in the research methodology. The final week of practice counts was intended to give researchers insight into the best times, categories, and zones to include in the research counts. Not having performed a sufficient amount of practice counts, researchers began the research without having answered some important questions regarding the methodology. Due to this lack of preparation, the researchers were forced to change count times and add a fifth category to their research document during the first week of the research. Because researchers were not looking to identify children pertaining to the fifth category during the counts that preceded its addition, the numbers from these first counts may not be representative of the actual number of children belonging in the fifth category. The need for these changes should have been foreseen and changes made after the final week of practice counts had the researchers performed a sufficient number of these.

Due to schedule conflicts and logistical problems at the Center, researchers did not consistently perform the counts during the same time allotment. Some counts which were scheduled for the same time varied by as much as two hours in their performance. This may have led to skewed data because street-connected children's

activity may have significantly changed during the difference in times in which the various counts were performed.

The difference in the social workers' prior experience in the field and knowledge of the town and its population of street-connected children may have posed a limitation to the study. One of the social workers had significantly less experience in social work and was less familiar with Taroudannt's street-connected children than the other social worker. Therefore, the less experienced social worker may have been less able than his counterpart to identify street-connected children and children displaying abnormal behavior in high-risk zones. The lead researcher noticed a difference in the thoroughness with which the two social workers covered the five zones during the counts. The more experienced social worker led the lead researcher through more alleys, streets, and open areas than the less experienced social worker. This led to the lead researcher counting more street-connected children with the more experienced social worker, and this may have caused skewed data in the final calculation of street-connected children.

Since the final head counts were to be performed by the lead researcher and split between two social workers, it was necessary for the three researchers to communicate during the research process. Once the first social worker had finished his share of counts, the lead researcher convened a meeting in which the first social worker was to explain in a detailed manner the specifics of the methodology, habits of mobility, and observations made during the first two weeks of counts. However, during the meeting the first social worker only briefly explained the methodology and gave no information regarding the team's observations. It was therefore the lead researcher who had to explain to the second social worker what exactly the team had done during the first two weeks of counts. However, the lead researcher was unable to sufficiently and thoroughly inform the second social worker due to linguistic, cultural and geographic limitations.

The lead researcher spoke the local language (Moroccan Arabic) at a conversational level, but his lack of fluency caused many limitations for the study. To begin, the lead researcher was limited in his ability to thoroughly present and discuss with the team the literature surrounding head counts. This resulted in members of the team not grasping the scope or purpose of the research project, which caused a

level of annoyance, frustration, and decreased morale among team members who felt the research was not useful for the purposes of MCT and GMH. As a result, the social workers performing head counts may not have put forth as much effort to thoroughly perform the counts as they would have if they had fully understood and believed in the scope and purpose of the research.

In all discussions, meetings, and conversations with Center Afaq staff, the lead researcher was unable to understand everything that was said and was sometimes unable to contribute meaningfully and discuss thoroughly the issues concerning the research project. This led to a potential division of understanding between the lead researcher and the rest of the team, as information was not shared in a comprehensive and understandable manner.

Another limitation of the study was that only one lead researcher and two social workers performed the head counts. This meant that each count was based on one or two individuals' observations, which allowed for more error and created more bias than if multiple teams of more than two counters had performed the counts.

Due to the counts being performed during school holidays and before Ramadan, the normal activity of the children became more nocturnal than when the kids were in school. Therefore, it was more difficult to determine if children who were on the street at night were street-connected or were simply running errands for their family or performing other activities that are normal for children during the holidays. Another normal holiday activity for Moroccan children is working. Many non-street-connected children help their family members in the shops in the market. In this case these children are not working out of economic necessity but rather because of family obligation and economic benefit. Such children do not qualify as being street-connected, but it was difficult for researchers to identify which children were street-connected and which children fell into the above category.

The lessons learned from this research were many, and the limitations experienced served as useful lessons to the research team and host organizations. One of the main lessons learned was that buy-in from all team members is crucial to successful project performance. When all team members understand the scope of a project, believe in its purpose and usefulness, and take ownership of the design,

performance, and outcome of the project, the host organization and all team members involved in the research benefit. The benefits include a thorough planning and development of project methodology, open and productive dialogue concerning project specifics, and accurate data representative of the research objective.

Another lesson learned was that continuous and clear internal communication is necessary for team members to feel included and understand the project. A linguistic barrier as well as segregated discussions can limit communication and lead to team members being excluded from or misunderstanding pertinent project information.

This project would have benefitted from team members having a clear understanding of time commitments from the beginning. Social workers were burdened with a heavy workload and this meant that the research was not always a priority. It would have been preferable if social workers had fully understood the time commitment that the project represented and had been able to fit the project work into their schedules in a reasonable manner. Furthermore, the project would have benefitted from the lead researcher understanding the social workers' workload in order to prepare and plan around time constraints.

The lead researcher learned of the role that cultural attitudes about time plays regarding research. Research tends to be time specific and restricted, yet some cultures do not conceive time as rigid and fixed, but rather flexible and malleable. Therefore, it is important to understand and discuss cultural differences that may affect research methods.

Despite the limitations of this study, the researchers believe the project addressed its objective of producing minimum figures representative of the various categories of street-connected children in Taroudannt. As mentioned previously, it is impossible to get comprehensive data on an entire population or be 100% sure of the accuracy of a study's results. However, this study sought to produce a minimum estimation using a combination of established, reputable counting methods and strategies specific to the host organizations' needs, goals, and capacities. The result is data on the population of street-connected children in Taroudannt that the host organizations can use to guide and inform future program development.

Due to the Moroccan cultural tendency for boys, rather than girls, to spend more time unaccompanied by an adult in public and be out of the house until the evening, researchers expected to count fewer girls than boys during the night counts. The results confirmed this conclusion and showed furthermore that boys outnumbered girls by a factor of 20 to 1 in all counts. The social workers credit this phenomenon to the tendency of Moroccan families to protect girls, keep them at home, and have them help out with household chores. This does not mean that these girls are not at-risk in similarly vulnerable conditions as their male counterparts, but rather that they are less publicly visible.

The literature shows that many young girls from poor or unstable households are often hired as domestic workers and are therefore hidden from the public's eye (Guessous, 2010). Though these girls do not spend much time on the street, they still suffer grave abuses of their rights, including physical, psychological, and sexual abuse (Guessous, 2010). These domestic workers are often deprived of sleep and sufficient nutrition, isolated from both their own families and the family for whom they work, and are susceptible to absenteeism from school and even prostitution (Guessous, 2010). Therefore, since these girls face similar dangers and suffer similar abuses as their male counterparts who spend time on the street, researchers categorized these girls as street-connected. Furthermore, as most of their time is spent inside the residence of their employers, researchers assume that the number of street-connected girls counted in the research is not an accurate representation of the actual number of street-connected girls in Taroudannt.

The researchers counted about 40 children between the ages of 13-17 who were working. These were counted as street-connected, but later it was decided that children fitting into this category would not be considered in the final estimation of street-connected children in Taroudannt. This was due to the cultural tendency of children (mostly boys) to help their families by working during holidays from school. Older boys are especially encouraged to work during holidays as a means of developing responsibility, work ethic, and engaging in a productive activity. Therefore, children in the age range of 13-17 who were working were not considered in the final calculation of street-connected children.

The number of street-connected children the researchers counted increased drastically with each age category and with each subsequent time. Thus, researchers observed more older children than younger children and counted the fewest in the morning and the most at night. However, children in the two younger age groups appeared more frequently in the morning and afternoon counts than the oldest age group, whereas children in the oldest age group appeared much more frequently in the night counts than younger children. Researchers assume this is representative of the general trend since children spend more time outside the house as they get older, and this means they are exposed to risky street behavior. It is concerning that such a high percent of children aged 13-17 were counted at night (93%), and though this percent is higher because of the exclusion of children in this age group observed working, it is still likely indicative of the lack of parental and familial supervision. However, researchers feel that this high percentage is also due to families allowing their older children more freedom because they are seen as being more responsible. Furthermore, since the counts took place during the summer months, the heat may have led to older children – who have the liberties described above – waiting until the evening to go out and be with their friends in public places.

Zone D appeared to be a popular location for 13-17 year-old children as they were 89% of children counted within this zone. Researchers think this is due to several factors. First, zone D contains several areas that are common hangout points for teenagers, including the public gardens and the stadium where children play games. Second, a middle school and high school are located within zone D, making this zone a highly trafficked region for 13-17 year-olds. Finally, zone D contains Quartier l'Mhaita where children, often teenagers, sell drugs and sniff glue.

Similar to zone D, zones A and B contain popular hangout areas outside the walls surrounding Taroudannt, and it is more common for older children to venture outside these walls than younger children. It is also more common for drug selling to occur outside the walls, and this is another possible explanation for researchers counting more 13-17 year-olds than younger children in zones A, B, and D.

Children in the middle age category (7-12 years) comprised 68% of kids counted in zone E, and researchers think this is likely due to the Berber Market,

souq, and large number of snack shops located in this zone. These are places where 7-12 year-olds more than other groups spend time working, escaping the summer heat in the shade, and buying snacks from local vendors.

Researchers assume the head count data for the first age category (7.7% for 0-6 year-olds) is slightly under-representative due to a couple of cultural factors that may influence the visibility of younger street-connected children. First, children in the first age category (0-6 year-olds) are often kept at home when their parents leave the house to beg or seek money in some other fashion. Second, the younger the children the closer their range of activity is to their house, therefore making them less visible to researchers performing counts because researchers did not pass by each residence but rather visited the most highly trafficked areas. It is important to note however, that 75% of children aged 0-6 years were counted at night and 67% of these were counted in zone A. Though researchers assume this age category was underrepresented in the results, this point may indicate that street-connected children from 0-6 years are much more probable to be active at night than during the day. Researchers feel that children in this age category were more often seen in zone A because of the presence of two primary schools in this zone. Thus, GMH and MCT might target interventions with this age range toward children's night activity in zone A and collaborate with the schools located in this zone in order to be most effective at engaging the bulk of this street-connected population.

Nearly as many unaccompanied children in high-risk zones (category 5) were counted as street-connected children in the first four categories. Researchers do not consider children in the former category street-connected because they did not display observable street-connected behavior, but they were counted in the research because of their potential to become street-connected. These children were observed in areas with high occurrences of delinquency, crime, drugs, and other harmful activity and were without adult supervision. Children without adult accompaniment in these areas are more likely to succumb to street-related behavior, and therefore researchers felt it was important to include these children in a separate category from the children identified as street-connected in the first four categories. Having a quantitative figure of unaccompanied children in high-risk zones informs



researchers of the population of children in Taroudannt that has an increased potential to become street-connected.

The majority of children counted as street-connected during the study pertained to the third and fourth categories: 3) Permanently or principally in the street and 4) Activities witnessed. Within the fourth category most of the children counted were working, meaning that most of the street-connected children counted in the study were observed working or on the street past 23:00. It is concerning that so many children would be engaged in these two activities, but in comparison to the other categories it is preferable to find children working or playing sports in the street at night to begging, doing drugs, stealing, with their physical needs neglected, etc. According to social workers, children who are working are often not involved in illegal and harmful activities such as stealing, selling drugs, and gambling. Therefore, though these children are street-connected they do not pose as eminent or serious a societal problem as children involved in the activities described above. Though children observed in the street past 23:00 may participate in other street-connected activities, it is a good sign that researchers counted few of them with their physical needs neglected. This is suggestive that these children are not in immediate need of physical care, but rather parental supervision.

Though there was not a stark difference as to which zones children were counted in, zones A, B, and E had the highest percentages. This suggests that future efforts to engage street-connected children need to use more time and resources in these zones since they are more highly populated with street-connected children. The frequency of children counted in zone C hardly changed after category 5 was excluded, which may indicate that children in this zone are typically involved in more established activities such as working, begging, or stealing rather than spending time unaccompanied by an adult in this zone. Thus, MCT and GMH might focus an intervention in zone C on providing positive alternatives to the street-connected activities in which children participate and addressing the children's economic needs rather than lack of supervision.

This research may serve as an example for researchers seeking to perform quantitative head counts with limited resources. This project faced human resource constraints because social workers were to complete the research in addition to their

full-time job obligations. This project also faced time constraints as the lead researcher was only available to carry out the research during a 10-week period during the summer of 2013.

Future researchers performing head counts may benefit from this study's use of taking both the average and highest number from various counts in order to calculate the final estimation of street children in each zone. Such a strategy allows researchers to adjust the statistical methods to most accurately represent the population of children counted in the field.

Since most of the literature on head counts concerns large-scale projects in which multiple national and international agencies partook, this study may serve as an example of how an organization with limited capacities can perform a small-scale head count. In this study a lead researcher and two social workers performed the head count research to cover a city of almost 70,000 inhabitants.

The success of this project was aided greatly by the lead researcher possessing a conversational level in the local language and being culturally literate as well. These abilities provided the lead researcher a linguistic and cultural link to team members who could thus work within their linguistic and cultural comfort zone. The lead researcher was able to interpret cultural behavior and act within a framework conducive to local cultural values, humor, and customs. Future work in the field of head counting and other fields in which researchers unite across cultures would benefit from providing researchers cultural and linguistic training before commencing research.

The challenges that arose and the limitations that resulted from this research may inform future work regarding the importance of cross-cultural communication. Any research project that involves people from different cultures must consider the culturally unique forms of communication, attitudes towards time and work, and habits and perceptions regarding research. This project utilized a two-week familiarization period in which the lead researcher became familiarized with the host organization, built relationships with its staff, and adapted to the local culture before initiating the research project. Future researchers may benefit from adopting a similar strategy in which an initial period of cross-cultural familiarization and trust building is an obligatory precursor to research work.

Though this study drew from previous studies that used similar counting methods, there is still little research on purely observational head counting methods. More research needs to be done on the accuracy, efficiency, and effectiveness of observational head counts so that future researchers can collect accurate data with limited resources.

Similarly, since there is little research on observational head counts there is also little literature on the interpretation and discussion of results from these studies. It would be useful for future organizations to have access to ample literature regarding the process of interpreting observational data into useful recommendations in order to form effective action steps.

## **Recommendations**

Below is a list of general recommendations for the organizations hosting the research as they move forward and plan future program development.

1. Collaborate with other associations and organizations in Taroudannt that work with children. This would provide MCT and GMH with a more holistic understanding of the children's situations in order to better serve their needs. MCT and GMH should work in partnership with similar groups to make sure no child's needs are neglected or misunderstood because of her/his transfer from one organization to another.
2. Mold existing programs and design new programs with a focus on older youth (13-17 year-olds). Results show that this is the age range with the highest occurrence of street-connected children, so creating programs to give special attention to this group would be an efficient and effective strategy in providing intervention services to street-connected children in Taroudannt. Such programs may include training in financial responsibilities, job skills, cooking, goal-oriented planning, etc.
3. Increase efforts to locate and engage street-connected girls who are kept largely out of the public eye. Train and provide social workers with necessary tools to better address the problem of young girls working as domestic aides, prostitutes, and in other problematic professions that largely escape public visibility.

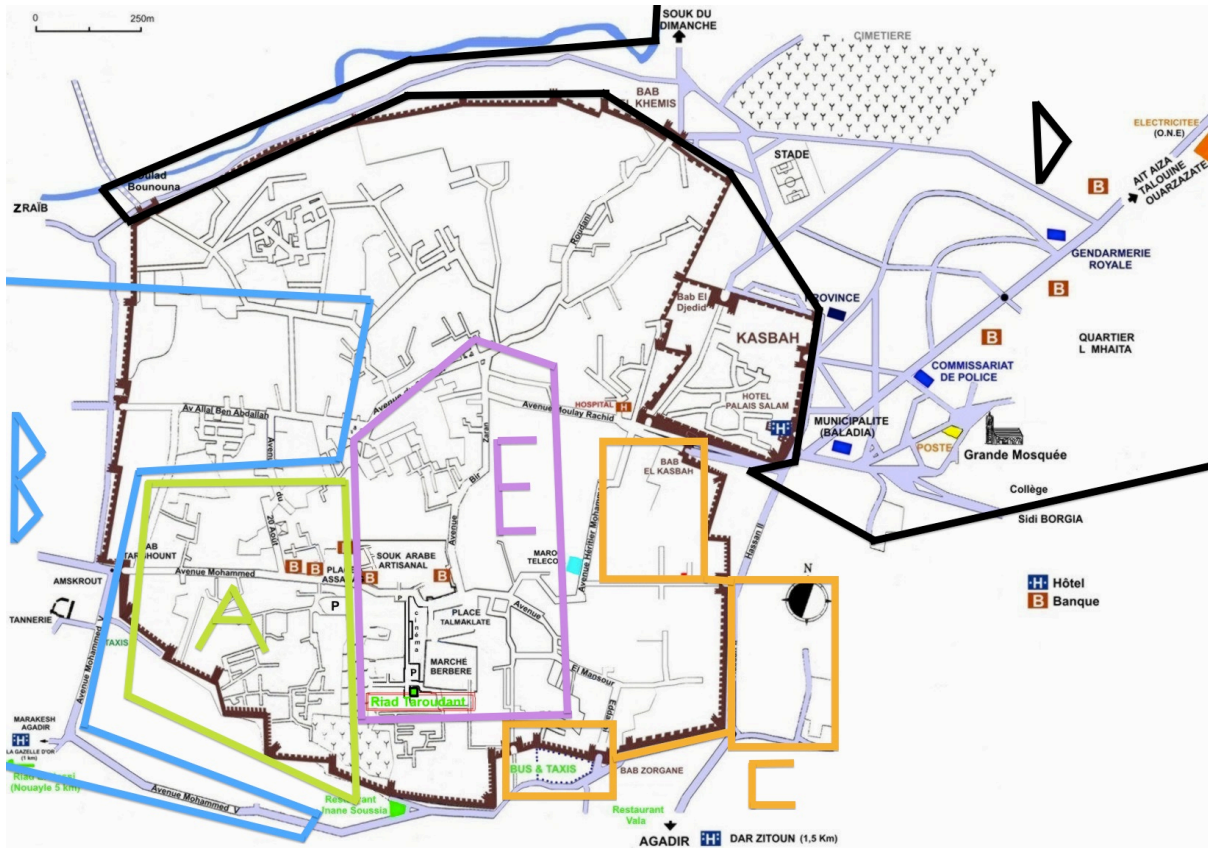
4. Carry out a qualitative study in order to more thoroughly assess the situation of street-connected children and be able to implement programs and services to holistically treat the children's specific needs. A qualitative study is the necessary next step for MCT and GMH to move from general data on the population of street-connected children in Taroudannt to specific data regarding the children's lives.
5. Plan another quantitative head count after new strategies, programs, and services have been implemented in order to measure their effectiveness.

## Appendices

### List of street-connected categories and sub-categories

1. Physical Needs Neglected
  - a. Dirty body and/or clothing
  - b. Marks or injuries on the body
  
2. History Known
  - a. Social workers already know the situation of the child
  
3. Permanently or Principally in The Street
  - a. Sleeping in the street
  - b. Found in the street after 23:00
  
4. Witnessed Engaging In The Following Activities:
  - a. Begging
  - b. Stealing
  - c. Smoking
  - d. Take drugs/sniff glue
  - e. Working in public (washing cars, working in the souq, selling plastic bags or cigarettes, carrying bags, polishing shoes, etc.)
  - f. Girls who work as maids
  - g. Selling drugs
  - h. Collecting rubbish, separating it, and selling it
  - i. Playing cards for money (gambling)
  - j. Accompanying tourists
  
5. Unaccompanied by an adult in high-risk areas before 23:00

# Map of Taroudannt divided into the five count zones



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