

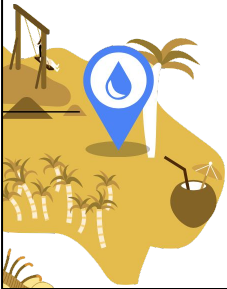
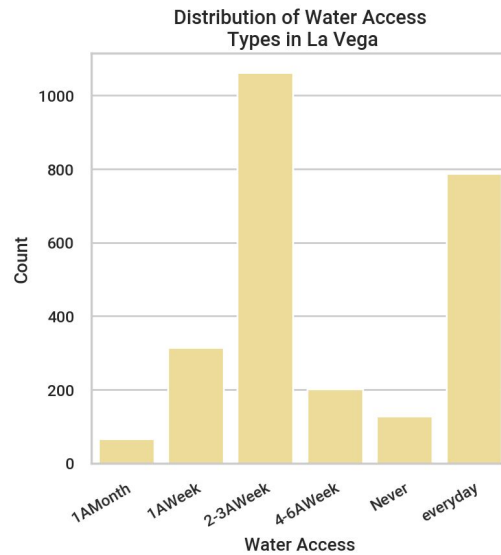
**PUENTE**  
DESARROLLO INTERNACIONAL

# THE BRIDGE BETWEEN DATA & DEVELOPMENT

Hamza Baccouche, Katherine Berry, Drue Froeschke, Mattias Siimar

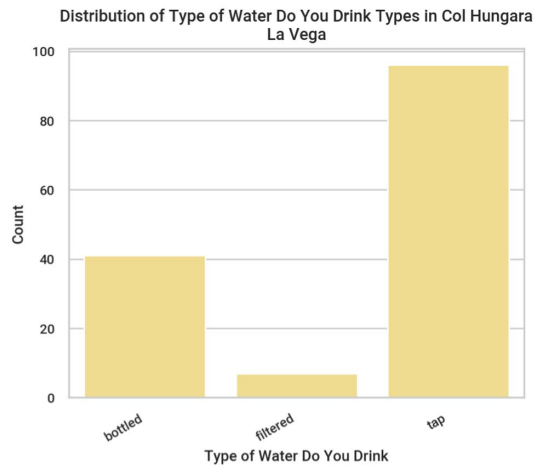
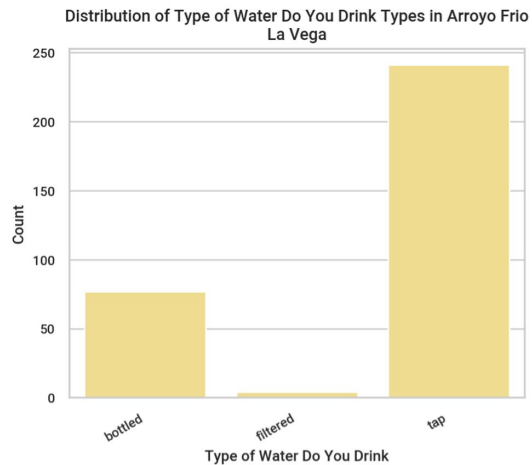
# KEY FINDINGS

# DISTRIBUTION OF WATER ACCESS



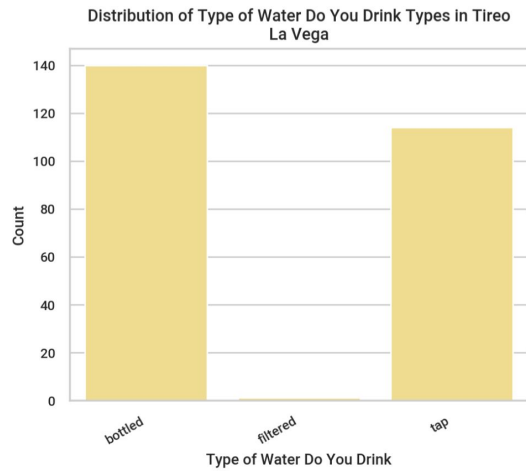
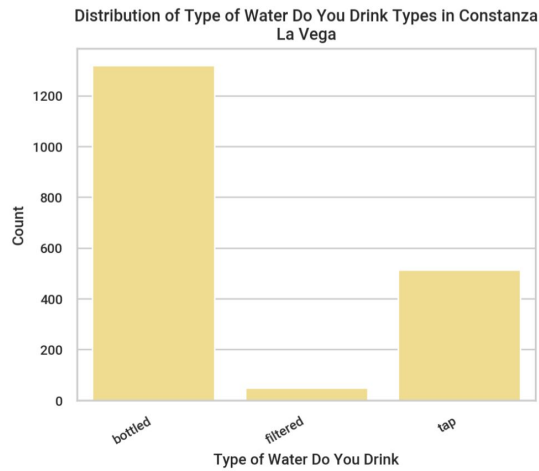
This graph shows how frequently residents in La Vega and Santiago have access to water ranging from everyday to never. Majority of residents in La Vega have access to water 2-3 times/week or everyday.

# DISTRIBUTION OF TYPE OF WATER



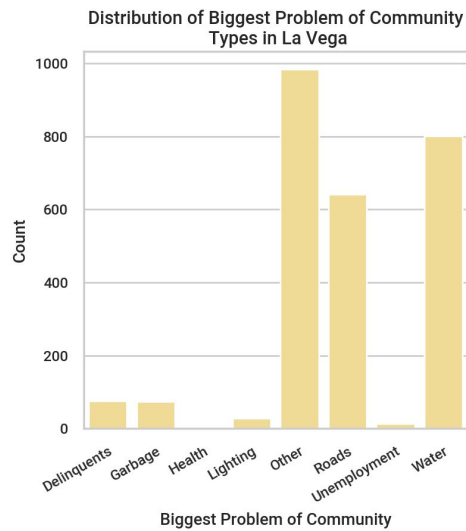
These graphs show the type of water La Vega residents drink, broken down by community within the La Vega Province. Overall in La Vega, a lot of residents drink tap water (compared to a lot of other provinces)

## DISTRIBUTION OF TYPE OF WATER (CONT.)



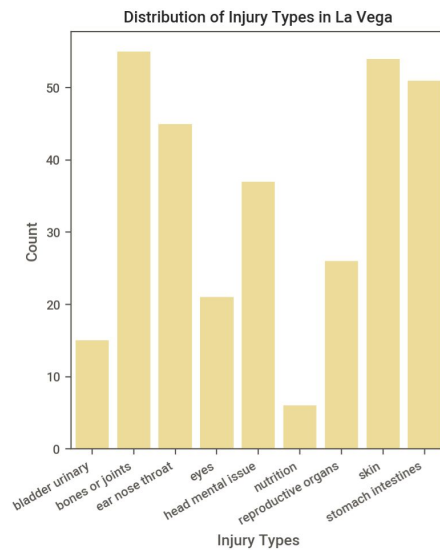
These graphs show more communities, continuing to show how much tap water is being consumed.

# DISTRIBUTION OF BIGGEST PROBLEM



This graph shows that community members felt that their largest issue was water, which was interesting because they mostly drank tap water.

# DISTRIBUTION OF INJURY TYPE



This graph makes it clear to us that people in the La Vega province have issues with stomach intestines which could be caused by unclean tap water.

La Vega drinks a lot of tap water, and they have high rates of stomach and intestinal issues

## KEY FINDING

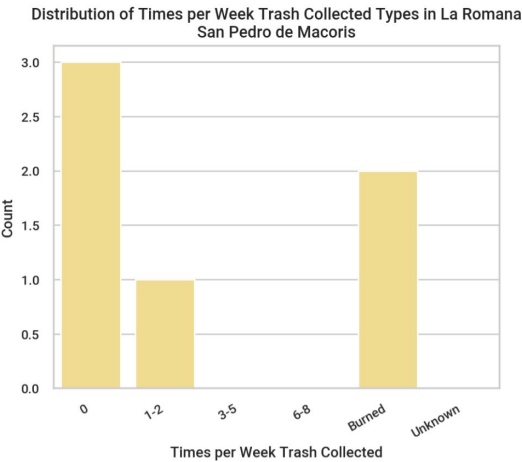
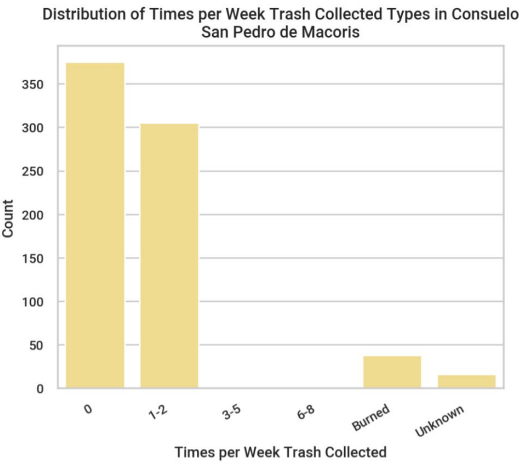


Based on these findings, Puente should consider implementing more water filtration systems in order for people to avoid several health issues.

Now over to Hamza to go over a different Province.



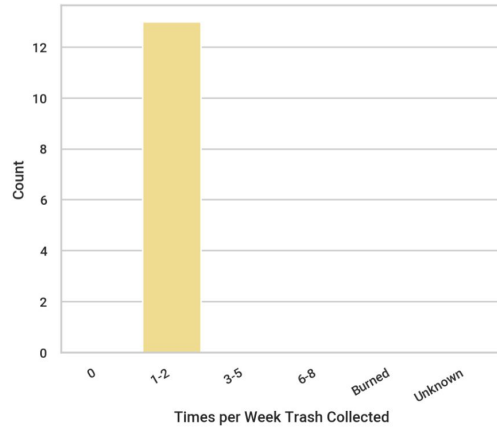
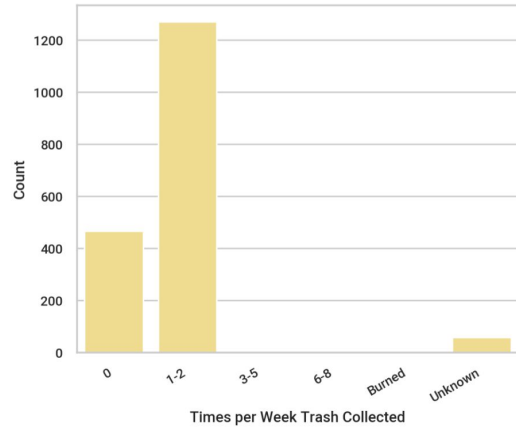
# DISTRIBUTION OF TRASH COLLECTION



These graphs show the frequency of trash collection in San Pedro, broken down by community, with most residents having trash collection not at all during the week, some only 1-2 times, and some burned.

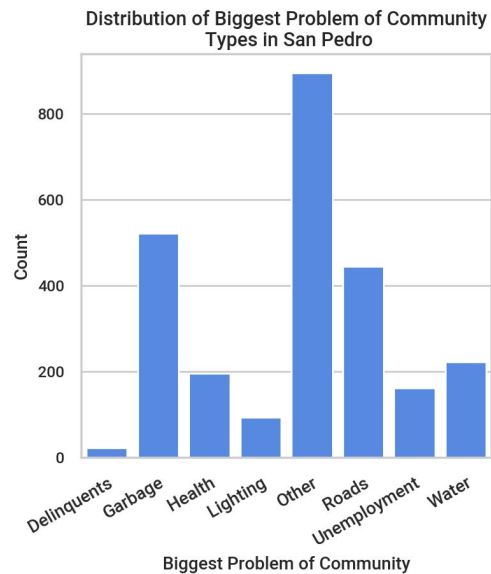
# DISTRIBUTION OF TRASH COLLECTION

Distribution of Times per Week Trash Collected Types in San Pedro de Macoris Distribution of Times per Week Trash Collected Types in Santo Domingo Norte  
San Pedro de Macoris



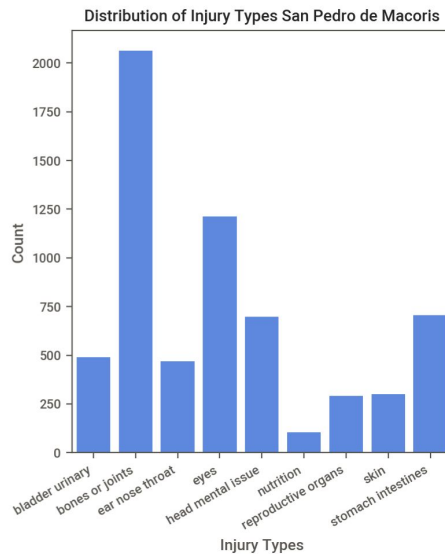
These graphs show more communities, continuing to show how infrequently trash is being collected.

# DISTRIBUTION OF BIGGEST PROBLEM



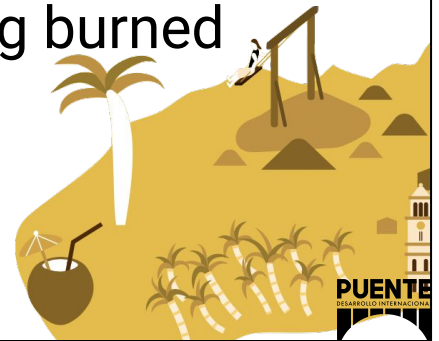
This graph shows that community members felt that their largest issue was other, followed by garbage, potentially because of the lack of collection.

# DISTRIBUTION OF INJURY TYPE



This graph makes it clear to us that people in the San Pedro province have issues with their eyes, stomach and gastrointestinal problems, as well as ear/nose/throat problems, all of which could be connected to too much garbage in the community.

The San Pedro de Macoris community has a high rate of eye and ear/nose/throat issues, which could be a result of garbage not being collected enough or being burned



## KEY FINDING

Based on these findings, Puente should consider collecting trash in San Pedro more frequently in order for people to avoid several health issues.

# **CORRELATIONS**

For reference, an  $r$  value indicates the correlation coefficient, and it ranges from -1 to 1. When  $r$  is close to -1 or 1, the more closely those two variables are related. An  $r$  value close to 0 indicates that there is no significant relationship between the two variables.

## **CORRELATIONS**

The correlation between condition of cement floors and condition of the roof in a house, meaning if one is poor, the other typically is too, is  $r \approx 0.4$ .

## **CORRELATIONS**



The correlation between years lived in a given house and years lived in the community, meaning people usually stay in one house and don't move houses often, is  $r \approx 0.65$ .

## **CORRELATIONS**



HAMZA

Based on these findings, Puente should consider collecting trash in San Pedro more frequently in order for people to avoid several health issues.

There is a much stronger correlation between where you go for medical problems and where you go for dental problems for those who answered Ramon Santana Hospital ( $r \approx 0.85$ ) vs, other responses ( $r \approx 0.5$ ), meaning those who go to Ramon Santana are much more likely to go there for both medical and dental services, whereas other responses aren't as likely to go to the same place for medical and dental services.

## **CORRELATIONS**

The correlation between having no water access and believing the biggest problem of your community is water, meaning people who don't have water access believe that to be a bigger problem than others like crime, infrastructure, lack of healthcare, etc. when those other problems also occur, is  $r \approx 0.45$ .

## **CORRELATIONS**

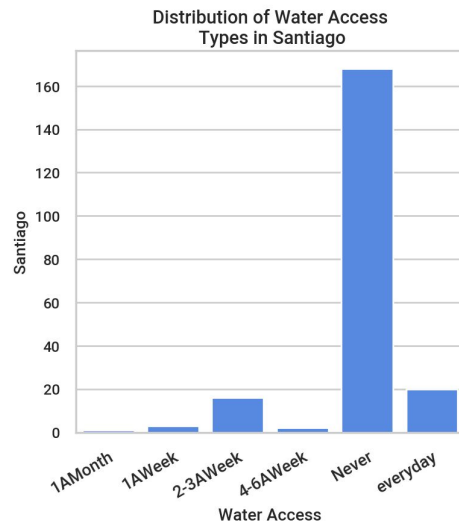
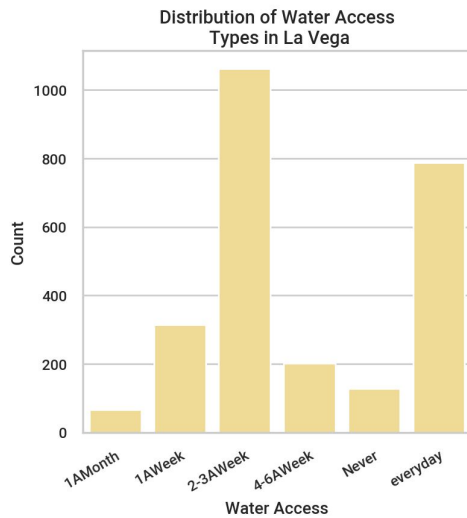
## **EXTRA VISUALIZATIONS**

# RESPONDENT LOCATIONS



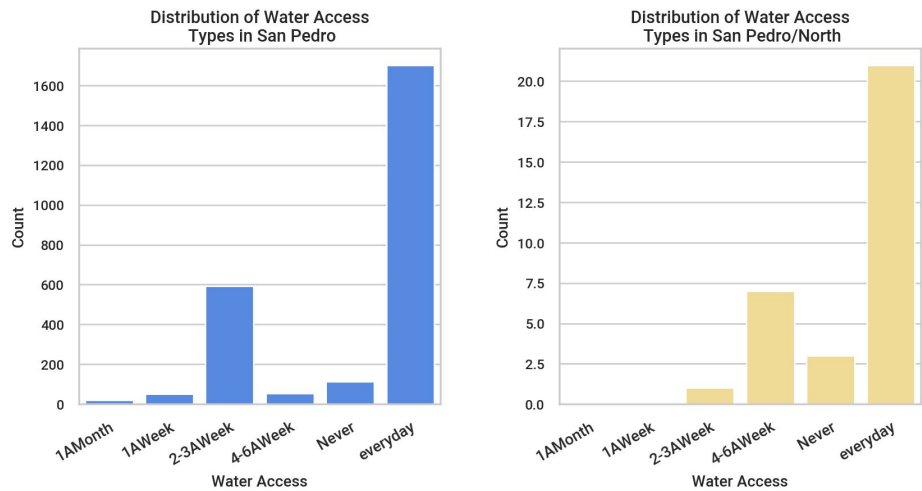
This graph shows a high level overview of where the respondents of the datasets are located within the Dominican Republic.

# DISTRIBUTION OF WATER ACCESS



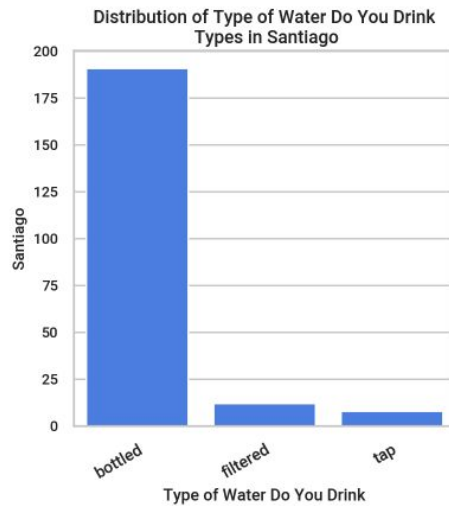
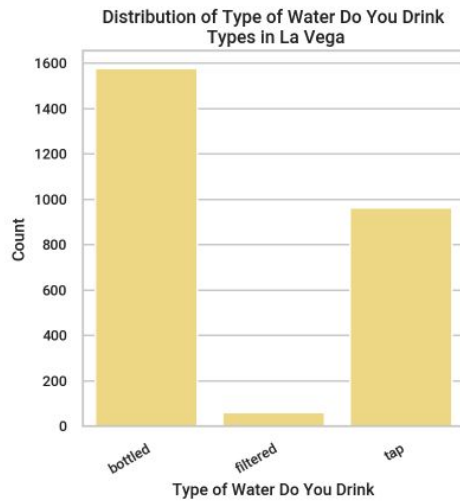
This graph shows how frequently residents in La Vega, Santiago, San Pedro, and North San Pedro have access to water ranging from everyday to never.

# DISTRIBUTION OF WATER ACCESS



This graph shows how frequently residents in La Vega, Santiago, San Pedro, and North San Pedro have access to water ranging from everyday to never.

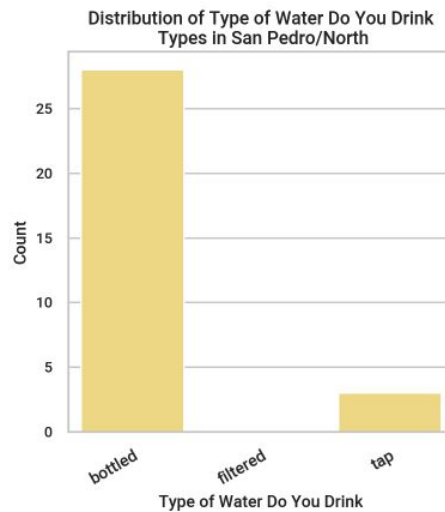
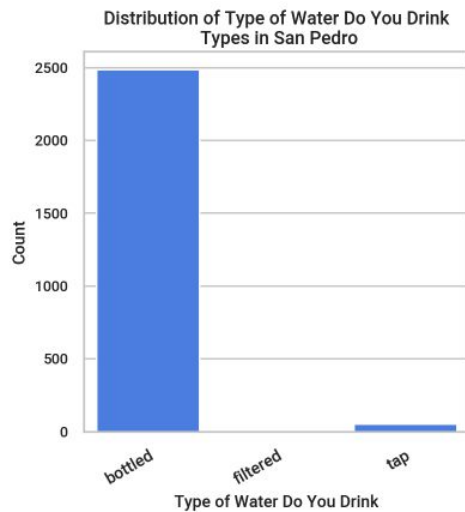
## DISTRIBUTION OF WATER TYPE



This graph shows what type of water residents in these communities have access to, with the three types of water being bottled, filtered, or tap. As you can see, an overwhelming majority of citizens in all communities have most access to bottled water, with very little having access to filtered water.

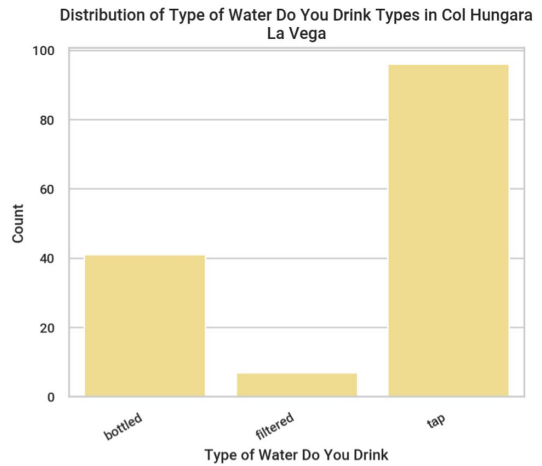
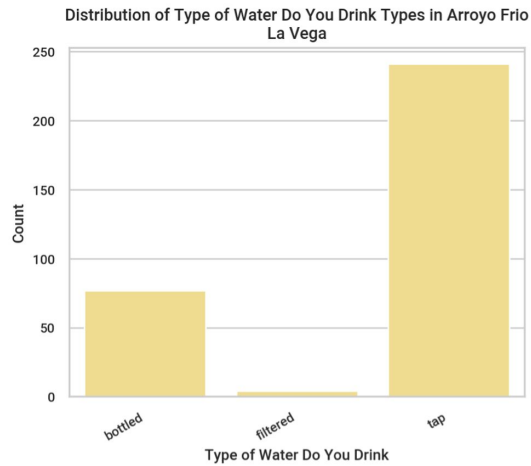


## DISTRIBUTION OF WATER TYPE



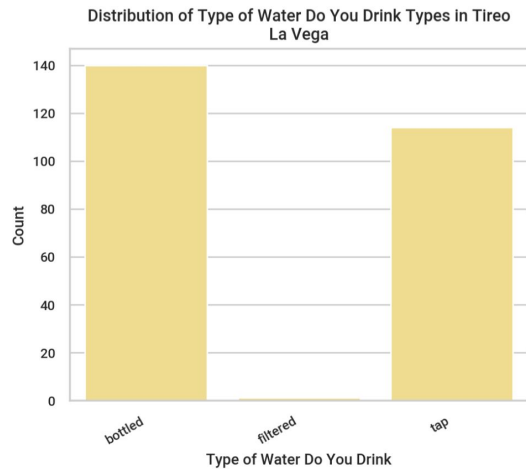
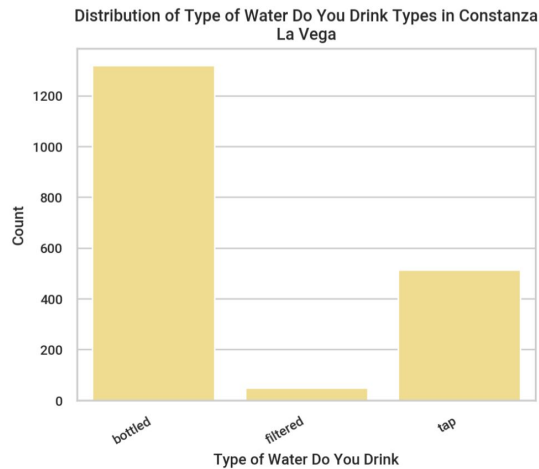
This graph shows what type of water residents in these communities have access to, with the three types of water being bottled, filtered, or tap. As you can see, an overwhelming majority of citizens in all communities have most access to bottled water, with very little having access to filtered water.

## DISTRIBUTION OF TYPE OF WATER (LA VEGA)



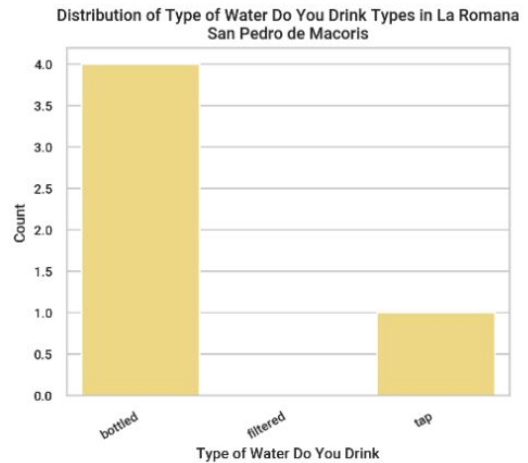
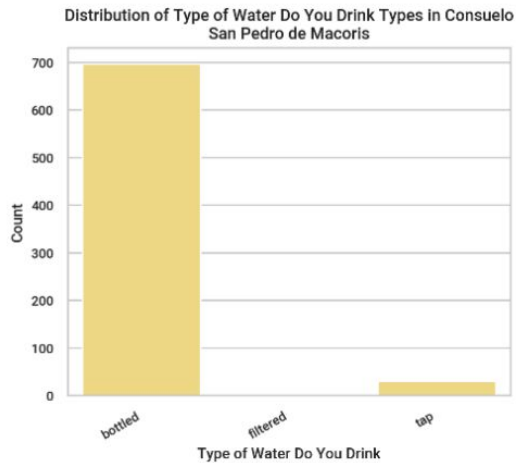
These graphs show the type of water La Vega residents drink, broken down by provinces within the La Vega community. Overall in La Vega, a majority of residents drink tap water, but as you can see multiple provinces actually drink more bottled water than tap.

## DISTRIBUTION OF TYPE OF WATER (LA VEGA)



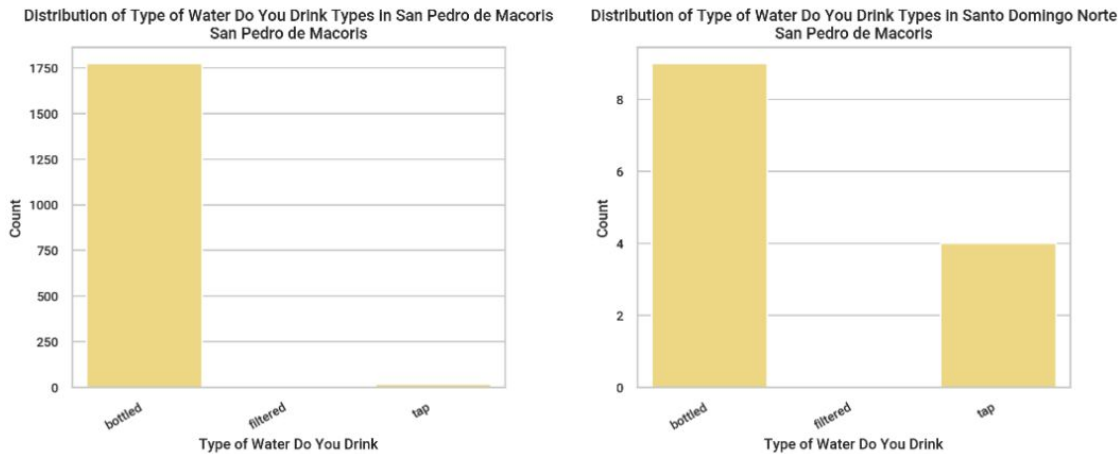
These graphs show the type of water La Vega residents drink, broken down by provinces within the La Vega community. Overall in La Vega, a majority of residents drink tap water, but as you can see multiple provinces actually drink more bottled water than tap.

## DISTRIBUTION OF TYPE OF WATER (SAN PEDRO)



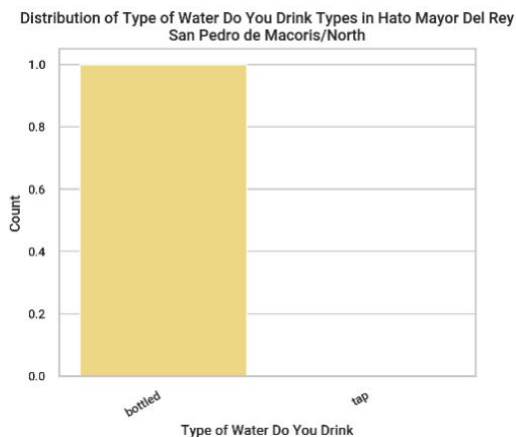
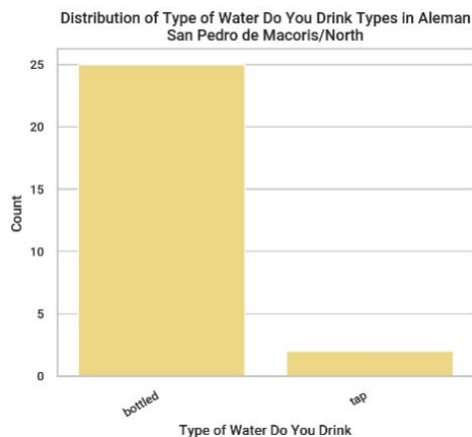
These graphs show the type of water San Pedro residents drink, broken down by provinces within the San Pedro community. Overall, San Pedro residents drink the most from bottled water, and this is depicted in these graphs where all provinces drink majority bottled water.

# DISTRIBUTION OF TYPE OF WATER (SAN PEDRO)



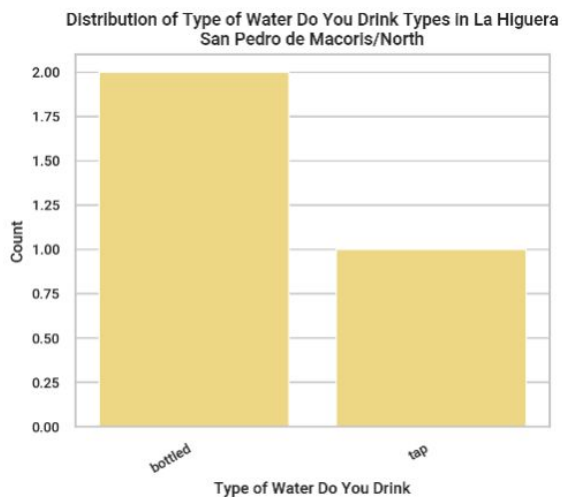
These graphs show the type of water San Pedro residents drink, broken down by provinces within the San Pedro community. Overall, San Pedro residents drink the most from bottled water, and this is depicted in these graphs where all provinces drink majority bottled water.

## DISTRIBUTION OF TYPE OF WATER (NORTH SAN PEDRO)



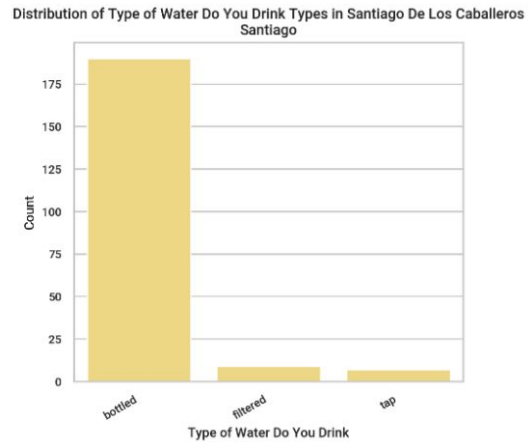
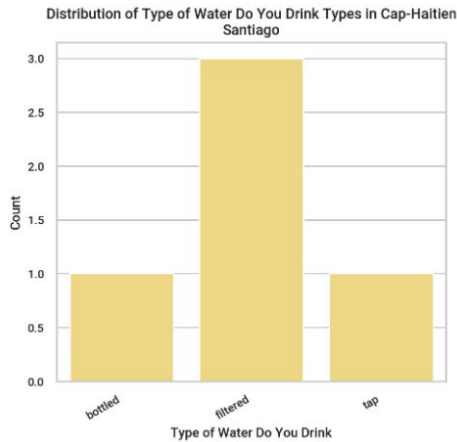
These graphs show the type of water North San Pedro residents drink, broken down by provinces within the North San Pedro community. Overall, North San Pedro residents drink the most from bottled water, and this is depicted in these graphs where all provinces drink majority bottled water. The fourth graph is blank because there are only three provinces in North San Pedro.

## DISTRIBUTION OF TYPE OF WATER (NORTH SAN PEDRO)



These graphs show the type of water North San Pedro residents drink, broken down by provinces within the North San Pedro community. Overall, North San Pedro residents drink the most from bottled water, and this is depicted in these graphs where all provinces drink majority bottled water.

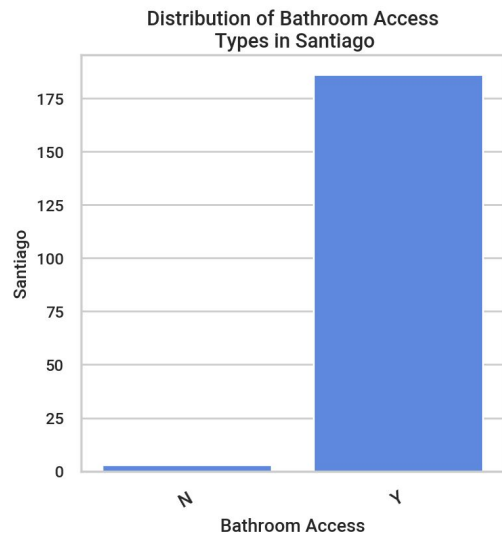
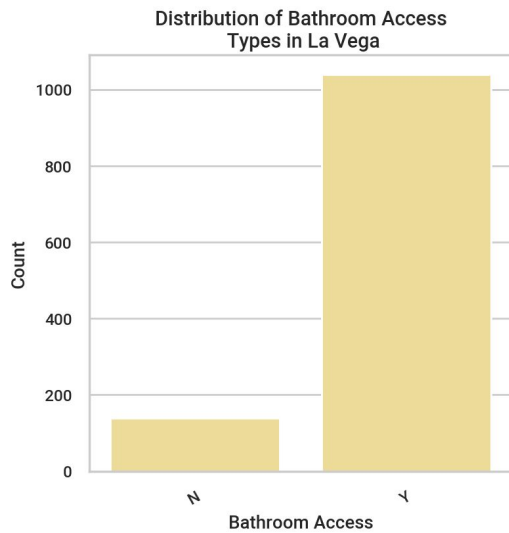
## DISTRIBUTION OF TYPE OF WATER (SANTIAGO)



These graphs show the type of water Santiago residents drink, broken down by provinces within the Santiago community. Overall, Santiago residents drink the most from bottled water, but as you can see one province actually drinks more filtered water than tap.

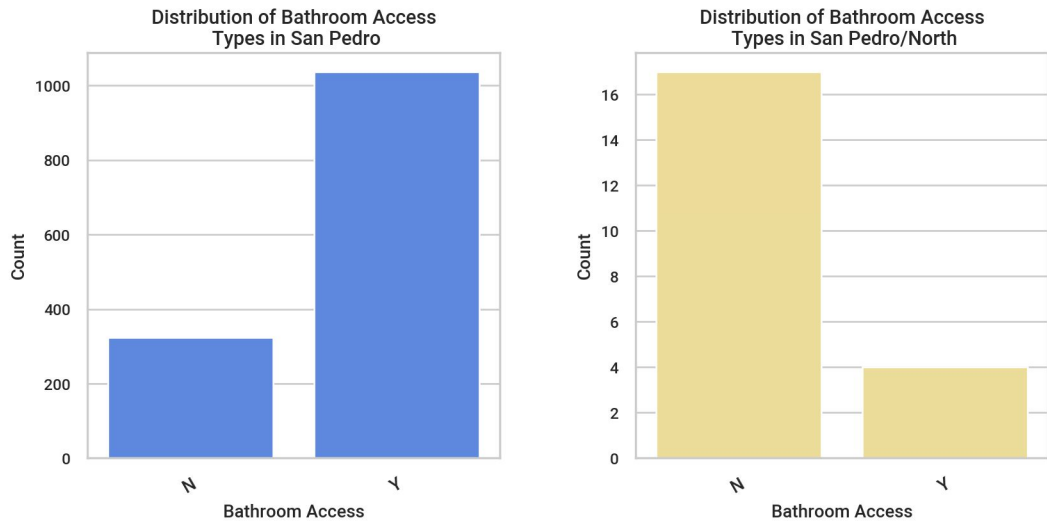


# DISTRIBUTION OF BATHROOM ACCESS



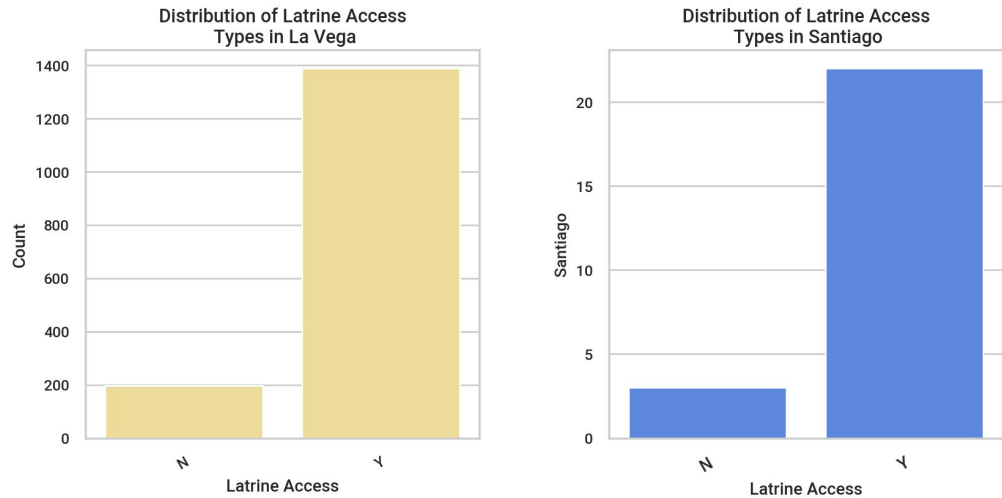
This graph shows whether or not residents of the communities have regular access to a bathroom. In most communities, a majority of residents have access to a bathroom, with North San Pedro being an exception to that as most residents do not have access to a bathroom.

# DISTRIBUTION OF BATHROOM ACCESS



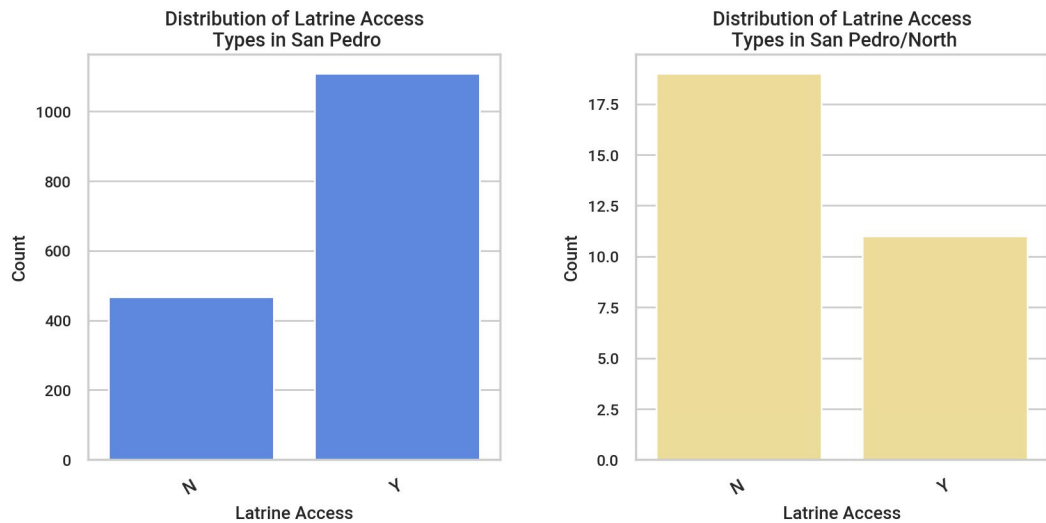
This graph shows whether or not residents of the communities have regular access to a bathroom. In most communities, a majority of residents have access to a bathroom, with North San Pedro being an exception to that as most residents do not have access to a bathroom.

# DISTRIBUTION OF LATRINE ACCESS



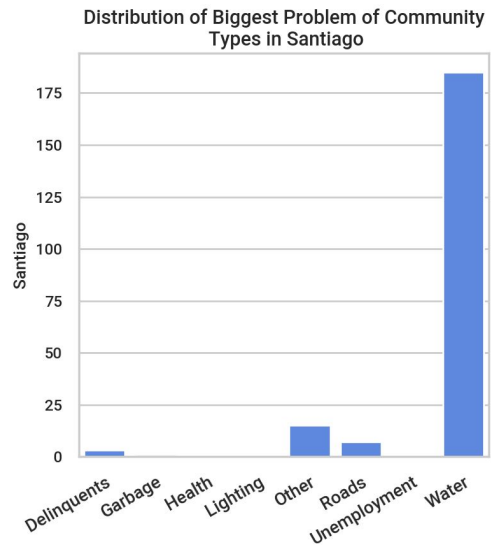
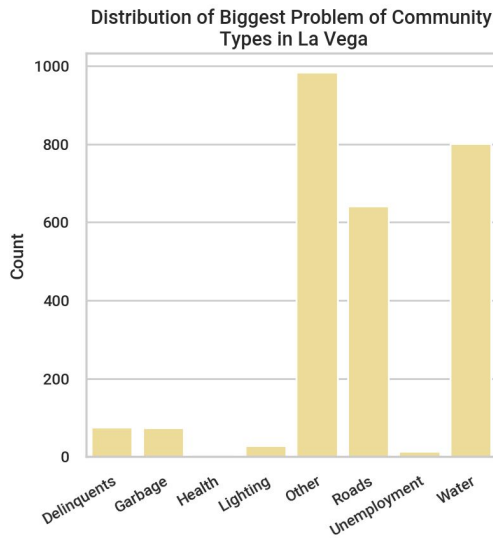
This graph shows whether or not residents of the communities have regular access to a latrine. In most communities, a majority of residents have access to a bathroom, with North San Pedro being an exception to that as most residents do not have access to a latrine.

# DISTRIBUTION OF LATRINE ACCESS



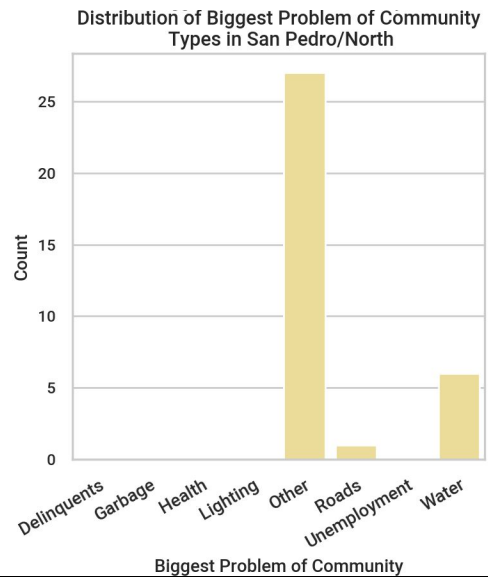
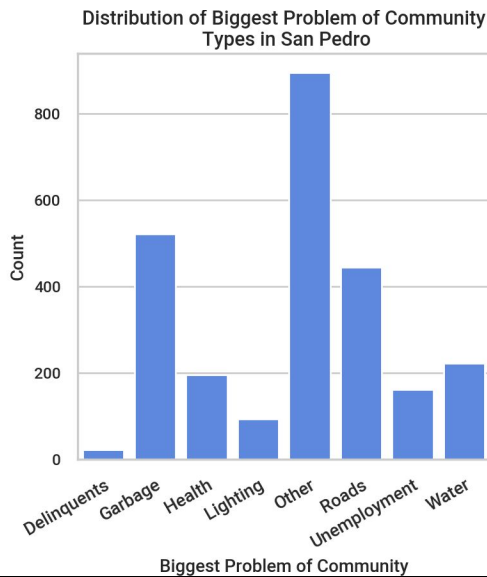
This graph shows whether or not residents of the communities have regular access to a latrine. In most communities, a majority of residents have access to a bathroom, with North San Pedro being an exception to that as most residents do not have access to a latrine.

# DISTRIBUTION OF BIGGEST PROBLEM



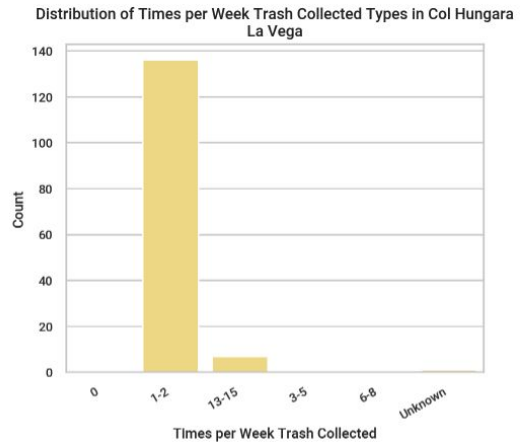
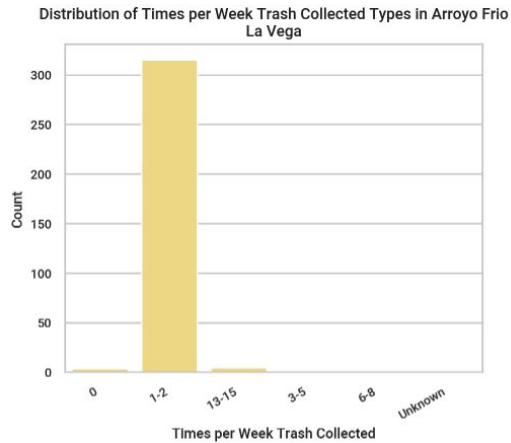
This graph shows what community members felt their biggest problem throughout their specific community is. Many respondents chose other, indicating their biggest community problem was not listed. Other prominent issues that members across communities are concerned about were water and roads, with San Pedro also being concerned about garbage disposal.

# DISTRIBUTION OF BIGGEST PROBLEM



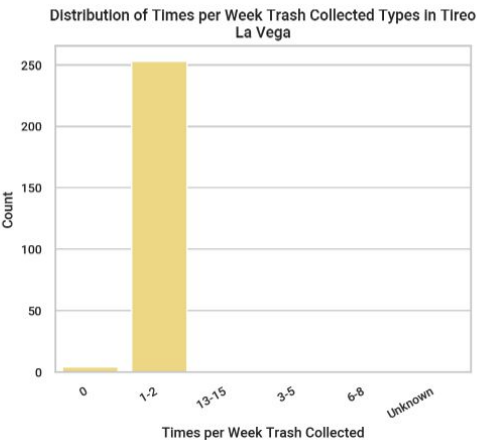
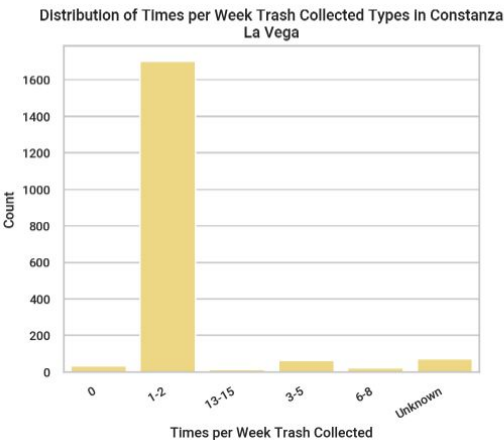
This graph shows what community members felt their biggest problem throughout their specific community is. Many respondents chose other, indicating their biggest community problem was not listed. Other prominent issues that members across communities are concerned about were water and roads, with San Pedro also being concerned about garbage disposal.

## DISTRIBUTION OF TRASH COLLECTION (LA VEGA)



These graphs show the frequency of trash collection in La Vega, broken down by province, with the majority of residents having trash collected 1-2 times per week.

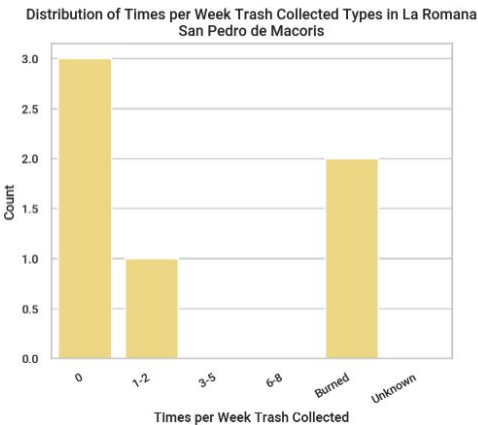
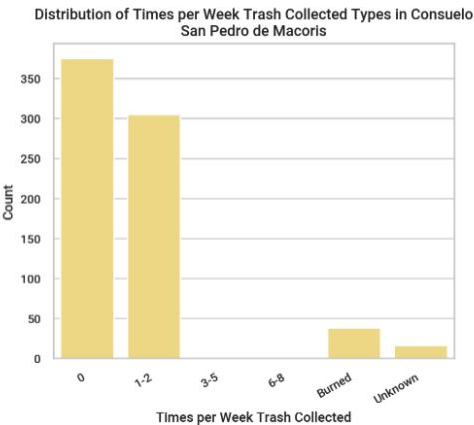
# DISTRIBUTION OF TRASH COLLECTION (LA VEGA)



These graphs show the frequency of trash collection in La Vega, broken down by province, with the majority of residents having trash collected 1-2 times per week.



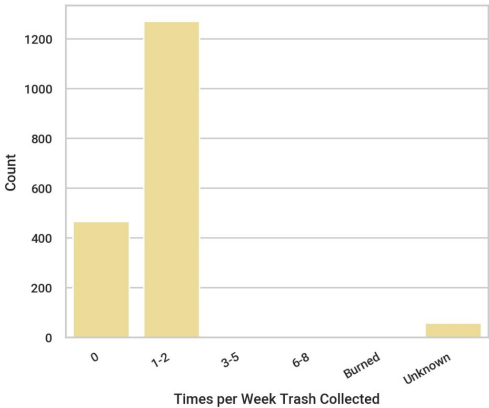
# DISTRIBUTION OF TRASH COLLECTION (SAN PEDRO)



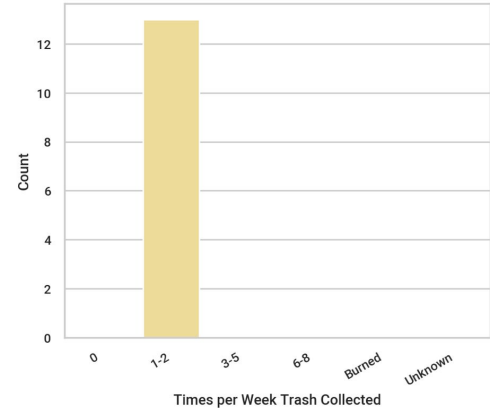
These graphs show the frequency of trash collection in San Pedro, broken down by province, with most residents having trash collection 1-2 times per week, or 0 times.

# DISTRIBUTION OF TRASH COLLECTION (SAN PEDRO)

Distribution of Times per Week Trash Collected Types in San Pedro de Macoris  
San Pedro de Macoris

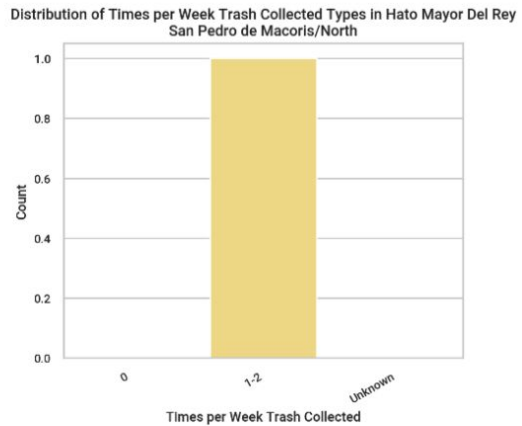
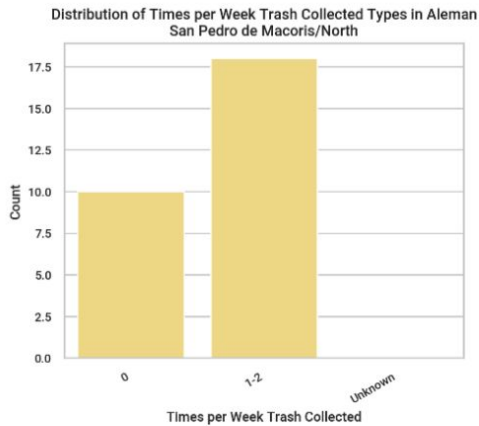


Distribution of Times per Week Trash Collected Types in Santo Domingo Norte  
San Pedro de Macoris



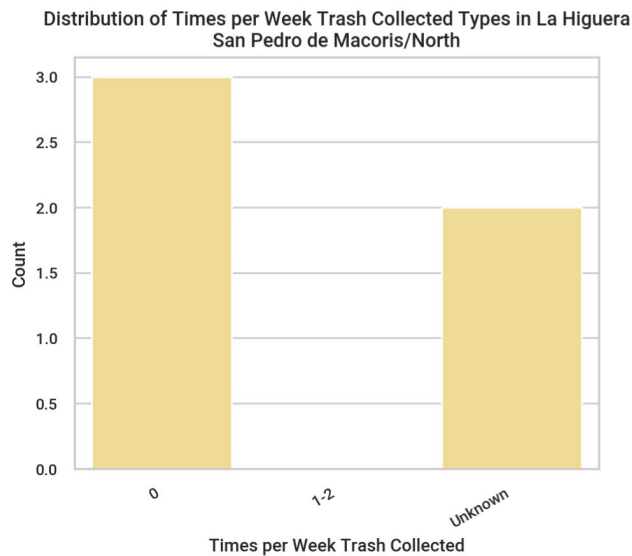
These graphs show the frequency of trash collection in San Pedro, broken down by province, with most residents having trash collection 1-2 times per week, or 0 times.

## DISTRIBUTION OF TRASH COLLECTION (NORTH SAN PEDRO)



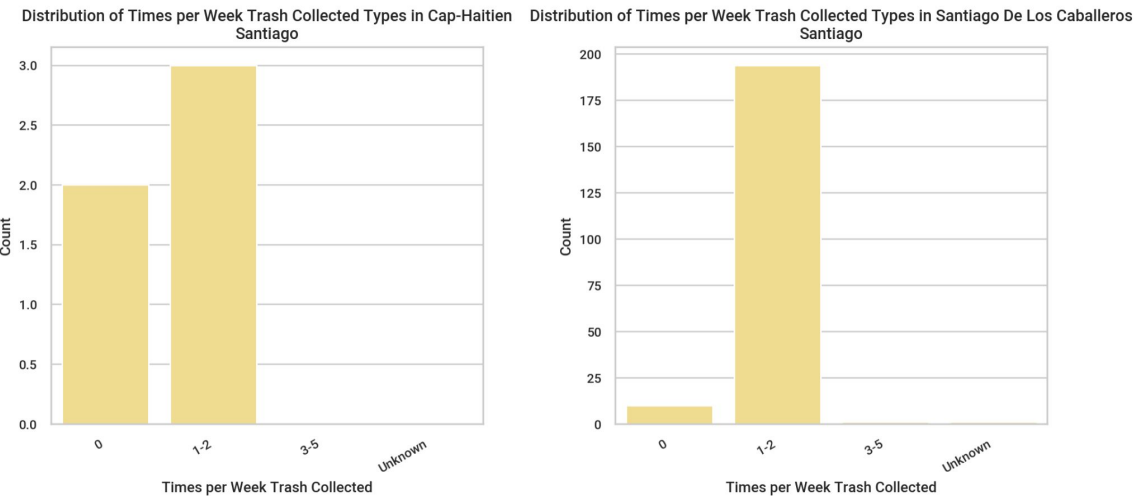
These graphs show the frequency of trash collection in North San Pedro, broken down by province, with a varied distribution among never, 1-2 times a week, and unknown.

## DISTRIBUTION OF TRASH COLLECTION (NORTH SAN PEDRO)



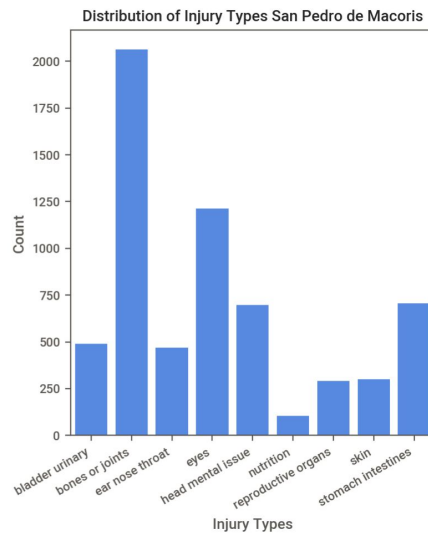
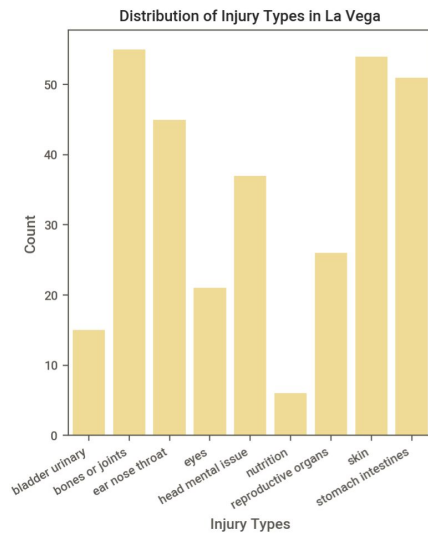
These graphs show the frequency of trash collection in North San Pedro, broken down by province, with a varied distribution among never, 1-2 times a week, and unknown.

# DISTRIBUTION OF TRASH COLLECTION (SANTIAGO)



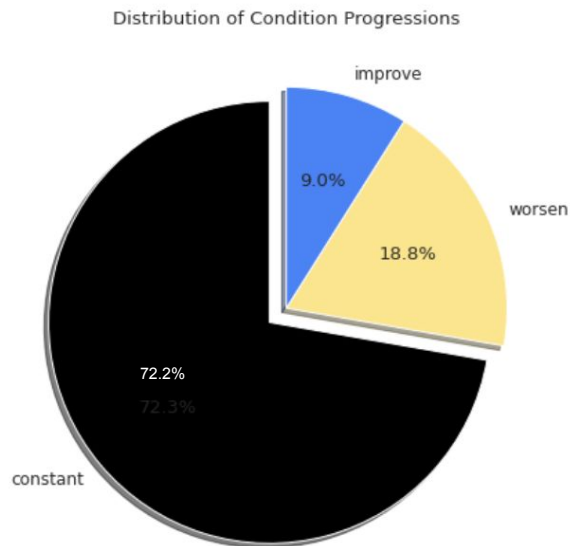
These graphs show the frequency of trash collection in Santiago, broken down by province, with the majority of residents having trash collected 1-2 times per week.

# DISTRIBUTION OF INJURY TYPE



These graphs show the frequency of various injuries that happen to residents in La Vega and San Pedro. The most prevalent injury in both communities is bone or joint related, with La Vega also having a high frequency of skin and intestine injuries.

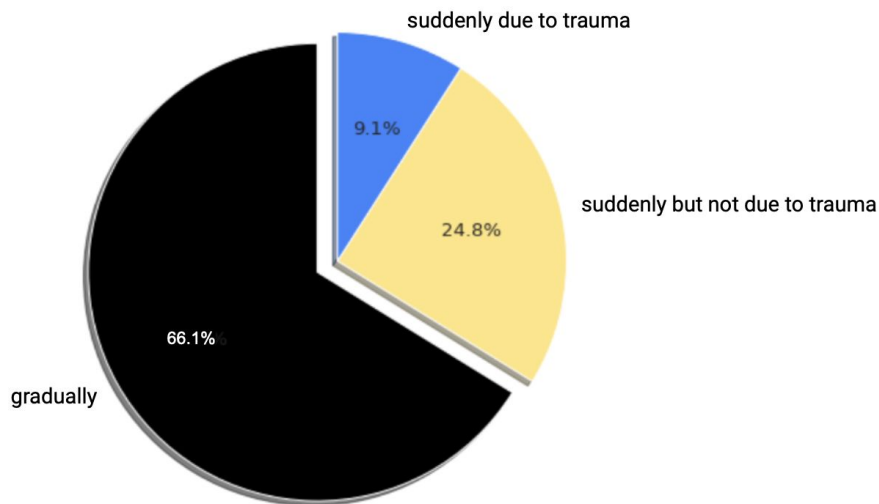
# DISTRIBUTION OF TRAUMA AND PROGRESS



These graphs break down the trauma progression graph to show progress for various parts of the body. The percentage graph shows that, although eyes related traumas are not the most prominent type of injury, they are the most likely to actually worsen. The same graph shows that skin related injuries are most likely to stay constant, having no progression.

## DISTRIBUTION OF TRAUMA AND PROGRESS

Distribution of Induced Traumas



The first graph shows how suddenly trauma started for residents of the Dominican Republic. This graph shows that a vast majority of trauma cases start gradually. The second graph shows condition progress of trauma cases. A very small minority of cases improve, with the majority seeing no change at all, and almost 20% of cases actually worsening.



# **PUENTE**

**DESARROLLO INTERNACIONAL**

