

Intensive Case Study #3 Manuel and household mobility with disability.

Yellow highlights added occasionally for clarification to survey.

Meta Data

Manuel was initially concerned about our use of migration data as an American institution, since he **

We reassure him that all of the information is confidential, anonymized and none of it will be shared with any immigration authorities of the US. We offer him to delete his data from the survey, but he says it's not necessary, he only wanted to confirm.

Set up 6/25/2019. Alfonso, Paty, Alejandro, and Veronica set up the appointment. He is entirely open to doing the case, and asks us to come around 1pm.

Survey Case #; GPS etc

Colonia Agrarista

Rationale for Case Study (Generic and from the Survey):

- A single person in a household, with a disability (paralyzed from the waist down and is unable to walk) and doesn't use a wheelchair to move within house.
- He moves around by himself and does all the house duties, including taking care of his yard and his burro. This becomes a very illustrative case of how a household is arranged to meet his mobility needs.
- How does he move around his house? How does he get his needs met? Groceries, food, medical needs, daily activities?
- How is his house modified to fit his disability? What kinds of modifications are present and what is used for those modifications?

Synthesis of Case from Survey

- Manuel ** (51) owns his house and has been there for 40 years. He is one of the original settlers of Colonia Agrarista. His house has been added on to for these 40 years.
- He does not have a car. He may have a wheelchair but we are unsure.
- He has a donkey and acts as though it is a pet.
- He cultivates corn. We are unsure where he cultivates this and how he gets to the field.
- He goes to Atlixco to get his medicines and for clinic appointments. His family takes him to the pharmacy or clinic when he needs it. He believes that it is too far away and very hard to access. He does not access these services often.
- He has no chronic diseases but he is differently-abled. He is not able to move from the waist down but seems to be able to move with his arms.
- He has had no accidents in the last year. We will try to have him open up about the reason for his disability, which we have been told about from different people during different surveys.
- He was very optimistic and positive about his situation. He has not felt stressed in the past 2 weeks. He is aware of how hard his life is because of his disability but believes that he can manage these problems.
- He only cooks with gas and never uses carbon or wood. This is a sign of relative wealth.
- How does he deal with water storage? How does he access water?
- He believes that the water is very poor and does not believe that it is chlorinated.
- No humidity, pests. Fertilizers are in the patio and he does not think that they affect him because they are far away.

- His bathroom is connected to the drain and uses jicara. Why does he not use a shower (access issue)? Is his toilet tailored to his inability to move his legs?
- Daughter in the US ** redacted
- Does he feel isolated from the community because of his disability?
- He believes that the community will get better.
- Air :
 - PM2.5= Moderate
 - PM10= Good
 - CO2=Good

Report VMR

General

- Was originally waiting on the step into the house for us.
- He is originally from San Francisco Xochiteopan and one is of the original founders of the community. He left San Francisco because there was not a lot of space for cultivating.
- He uses his donkey to get to the field. His donkey is the only animal that he has on the property and is very loving towards him.
- He cultivates corn but his cousin is the one that really farms because of Manuel's mobility issues.
- His father had a lot that was 50 by 50 but they later split it between him and his sobrina.
- Very positive outlook and is joking with us, talking about his favorite football teams
- He asked if Alfonso has residency in the United States. It seems like something that occupies his mind often.
- He did not want us to measure his bedroom but we were able to figure out the size based on its location between 2 rooms. That room is made of adobe

Background

- He was in the military; he was a lieutenant in Mexico City. That's where he had the accident. He wanted to migrate to the US to earn more money, he claims it was avarice. Redacted **
- Was able to walk for 22 years and then has a balazo (a shooting) that leaves him paralyzed from the waist down (the bullet hit him in the spinal column). Now, he has spent more of his life not able to walk then spent able to walk.
- The first of April he had left the military. By April 11 is when the accident happened. He was in the military for 3 years. If he had been in the military by the time of the accident, he would have received help.
- He says he went through a lot of hardships to raise his daughter on his own, and with the paralysis. He says he struggled, and life was very tough. He says his wife never came back – sounds sad about it.
- Says people helped him and gave him work during that time. He was making napkins, he was getting small gigs and selling the napkins in stores or different places, because he knows how to

sow. He also made plastic baskets, an late sir taught him and gave him the ideas on how to do it. People liked his work and would buy from him. He says the reason he hustled was his daughter – there was no option to fight and work and save money, enough to buy a goat. Then with that he managed to buy 20, and sell them and breed them. With that he would be able to buy food, and keep going. He would find different gigs anywhere, whatever he could do. Anything adds up. Eventually he sold half of the borregas, and bought a Becerra, then the Becerra had offspring, bought a bull, and had 9 cabezas de Ganado. By this point his daughter would help him, she was old enough. At some point he would sell a bull, and get a lot of money out of that.

- By that moment he felt he had been successful in raising his daughter. He made it. By that time, his daughter decided she wanted to leave. So they sold most of the cattle, and she left. The rest of the cattle started to go away, since he couldn't care for it in his condition.
- He sometimes gets bored of dealing without the cattle, so he thinks about going back, but really doesn't feel like it's worth the bother. He is doing well economically and doesn't feel he need to go at it again. But sometimes still considers it.

Ingenuity, Accessibility, and Renovations

- A lot of modifications are present in the house that allow for ease of access. On one of his doors in had a handle on the inside and he has rigged a string to unlock door from the outside (see pictures).
- Manuel does not personally go to the field a lot because it takes a lot of time and effort to get there. However, he sometimes goes there to 'hang around', for example, the earthquake hit him while visiting the fields.
- States that a jicara is used because it easier for him to use and because the regadera is more expensive to install
- To get on his donkey he wraps a rope around himself, pulls himself up, the donkey comes, and drops himself down on the donkey
- He has a wheelchair but does not use it very often. The wheelchair is not used because it prevents him from moving around as he desires and makes him uncomfortable. For work in the field, the wheelchair is not really useful, so he rather moves in the ground. He uses the wheelchair when he goes to the city or somewhere else.
- When he wants to leave his house, his family has to move him because it is very hard for him to get around. Accessibility in the chair is pretty poor because he does not have a ramp and the outside of his house is rock.
- He also uses a sack that is normally for corn to prevent him from scraping up his arms on the concrete
- The room closest to the back is the one that they began with and they have added on to the house each time. He has been able to pay for the renovations because of his daughter (she lives in the US and sends him remittances).
- He has modified the house to fit his needs, whether is be a light switch that is lower than normal, a rain water syphon system, a latrina all the way in the ground, soap lower to the ground, and ropes/ sticks to help him move.
 - He later says that the light switch was purposefully put lower
- There are a lot of sticks and brooms around to help him move that he uses to reach things or push himself up. He also has a lot of ropes to hoist himself up and get up steps.
- For water, he has a tube that is connected to the llave and he can fill up the tank at the bottom through a spigot

- He has never had an accident in the house, no falls, or anything.
- Uses gas because it easier to use for him. Wood and carbon are not used at all. He acknowledges it is more expensive, but it doesn't appear to be an issue for him.

Familial Support

- Has one daughter who is 30 years old and a granddaughter that is 7. The daughter and her family is in ** They communicate with internet and talk to them often. He has had an internet connection since April, there is a dish on the top of his house. He says the internet works very well, and spends time in social media, and other internet outlets to distract himself. But mostly, to talk to his daughter through videocalls.
- He relies on his family to bring him groceries and take him into town.
- Every day he has family come and visit him. Strong familial support makes his life a lot easier because they increase his accessibility.
- His father (83) and sobrina live in the community. The sobrina lives **

Outlook

- He loves his work and gets bored with the internet/ watching TV. He really enjoys working and cooking. He watches a lot of soccer, and is a fan of Chivas de Guadalajara. It is an important distraction for him.
- In general terms, he is a very optimistic person, and his story and ingenuity for dealing with the hardships of his disability, are inspiring.
- It started with 20 people in this community and has grown/ changed a lot]
- He prefers the campo 100/100 because it is less stressful and believes that here is better.

Veronica: The amount of ingenuity present was amazing. He has modified everything in his house to fit his needs. He has found ways to allow himself to be independent through his ingenuity. Using materials readily available to him, he has been able to modify his house to improve his life. Despite his disability, he was extremely positive and wanted was open to sharing his experiences.

Conclusions; Additional Team comments; and Action Items

VMR observations on the case

- Both emotional and financial support from his family has vastly improved his quality of life, mobility, and outlook.
- Amazing ingenuity present to increase accessibility.
- He has a very good division of space and keeps his home very clean and organized.
- To increase access, the street outside his house could be paved, allowing him to travel to the church / other areas without assistance.

Yellow highlights added occasionally for clarification to survey.

Meta Data

Redacted

Survey Case #; GPS etc. insert.

Rationale for Case Study (Generic and from the Survey):

- A single person in a household, with a disability (he's not able to walk) and doesn't use a wheelchair (or hasn't to our best knowledge).
- He moves around by himself and does all the house duties, including taking care of his yard and his animals. This becomes a very illustrative case of how a household is arranged to meet his mobility needs.
- How does he move around his house? How does he get his needs met? Groceries, food, medical needs, daily activities?

Synthesis of Case from Survey

- Manuel ** (51) owns his house and has been there for 40 years. He is one of the original settlers of Colonia Agarista. His house has been added on to for these 40 years.
- He does not have a car. He may have a wheelchair but we are unsure.
- He has a donkey and acts as though it is a pet.
- He cultivates corn. We are unsure where he cultivates this and how he gets to the field.
- He goes to Atlixco to get his medicines and for clinic appointments. His family takes him to the pharmacy or clinic when he needs it. He believes that it is too far away and very hard to access. He does not access these services often.
- He has no chronic diseases but he is differently-abled. He is not able to move from the waist down but seems to be able to move with his arms.
- He has had no accidents in the last year. We will try to have him open up about the reason for his disability, which we have been told about from different people during different surveys.
- He was very optimistic and positive about his situation. He has not felt stressed in the past 2 weeks. He is aware of how hard his life is because of his disability but believes that he can manage these problems.
- He only cooks with gas and never uses carbon or wood. This is a sign of relative wealth.
- How does he deal with water storage? How does he access water?
- He believes that the water is very poor and does not believe that it is chlorinated.
- No humidity, pests. Fertilizers are in the patio and he does not think that they affect him because they are far away.
- His bathroom is connected to the drain and uses jicara. Why does he not use a shower (access issue)? Is his toilet tailored to his inability to move his legs?
- Daughter in the US gives him money monthly and they talk often. The money is very important and he uses it for everything. *Be careful about asking about his daughter because he has already expressed explicit concern about how this information will be used.*
- Does he feel isolated from the community because of his disability?
- He believes that the community will get better.
- Air :
 - PM2.5= Moderate
 - PM10= Good
 - CO2=Good

Health Commentary for Manuel- Mobility and Physical Disability

Manuel is paralyzed from the waist down, greatly affecting his mobility and how he interacts with his house. He utilizes ingenuity to modify his house to fit his needs and mobility issues. While these

methods substantially improve his mobility and independence, they could potentially cause injuries due to their informality. For example, his house has a lot of steps because of the slope of the lot. Despite parts of the house being built after Manuel's accident, the house is not wheelchair accessible. To deal with these steps, he has a lot of sticks and brooms around the house, which allows him to pull himself up into the rooms. While this method improves his mobility, they could potentially cause an injury as the sticks can break or cause a false sense of safety. Ramps within the house, even used when he is on his hands, would improve safety and mobility. As Manuel ages, he is at a higher risk for injuring himself again (<https://stacks.cdc.gov/view/cdc/79969>), meaning that methods to improve prevent falls should be further investigated. The steps in the house and subsequent need to create informal solutions emphasizes that the house was not necessarily built to cope with his mobility challenges, however he is able to tailor the house to fit his needs with informal changes. However, these informal changes are potential health hazards and therefore ramps would be a better solution to improve mobility.

Some parts of his house were formally made to accommodate Manuel's unique needs, including light switches, shower fixtures, latrine, and kitchen appliances that were at an accessible height. The light switches in the house were lower than a standard light switch because Manuel cannot easily access things that are high up, as he mostly moves on his hands in the house. While he mostly uses cups for showering, his shampoos and soaps are at a low level to allow him to independently take a shower. The latrine is located far from the house, making it slightly harder to access, but a good option to improve sanitation. This latrine is a concrete hole in the ground without an above ground seat, which is very comfortable and accessible for Manuel. The kitchen appliances are also low to the ground and accessible to Manuel, allowing him to enjoy one of his favorite tasks, cooking, while also helping him maintain independence and cook for himself. Because he owns the house and is able to make modifications and plan around his disability, this is one formal modification he made. This modification improves his independence as he is able to best utilize all the features in his house.

The house is made of concrete floors. While this is practically and sanitarily the best option, Manuel moves using his hands and protects his arms using an old feed bag. Again, this method seemingly works for him but could cause injury and pain in his arms and legs. A wheelchair can ease mobility burdens and improve quality of life (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3560642/>).

As a step to increase his independence, Manuel is able to mount his donkey by himself using a house modification that he created. In his storage shed he has a space to mount his donkey using rope and a pole that runs across the entire building. To get on his donkey he wraps a rope around himself and pulls himself up. While he pulls himself up, he calls the donkey over, the donkey comes, and he drops himself down onto the donkey. This is striking ingenuity to improve his independence, as the donkey allows him to go visit the fields and talk to people. This method, while ingenious, presents a health hazard as it could cause an injury. If he falls from his five to seven feet position in the air, he could break a bone or injure himself, further limiting his mobility.

While he receives support from his family in Colonia Agrarista, he lives alone, making ease of mobility an even more pertinent issue. His house helps him to live fairly independently, as he has utilized informal modifications to improve his mobility, and subsequently his independence. The ingenuity present is striking as he has used cost effective methods (sticks, brooms, rope) to improve his quality of life and independence. While these modifications have undoubtedly improved his mobility, they can also be seen as potential hazards due to their informality and potential to break. As Manuel gets older, there

is a higher propensity for a dangerous fall while using these informal methods as they are not embedded into the house in the form of rails or ramps.

From a policy perspective, the road that leads to the house is very rocky. This limits his mobility within the community as he is unable to use the wheelchair that he has. To leave his property he must rely on the help of others, specifically his niece and father who live nearby. They bring him into town in a car for doctor's appointments and usually bring him groceries directly. The lack of wheelchair accessibility within the community greatly impacts his independence in the community, which can cause him to feel isolated as he is unable to go to church or get groceries without the assistance of others. Manuel has a large amount of familial support, vastly improving his quality of life, but without this, he would be unable to move around the community due to lack of wheelchair accessibility.

In conclusion, Manuel has been able to live independently due to informal modifications to his house. These innovations are creative and meet his needs quite well as he himself has created them. This being said, Manuel's innovations are slightly unsafe as they are informal and therefore can easily break, potentially causing an accident, especially as Manuel ages. Also, the street outside his house is very rocky and is not wheelchair accessible, decreasing Manuel's independence in the community.

When we returned in October he had a solar water heater on top of a newly constructed sala and bathroom (see photos in Chapter).