

## Primary Care or Acute Care?

# Healthcare Access on a Coffee Farm Clinic in Rural Nicaragua



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### **BACKGROUND**

Nicaragua is a country of just over 6,000,000 inhabitants and is considered the second poorest country in Latin America.

- 42.5% live below the poverty line & those living in poverty are disproportionately rural (World Bank, 2009)
- Poverty is a social determinant of health (Perez, et al., 2012)
- Rural communities located in the coffeedependent central region face multiple challenges including inhospitable physical terrain, limited employment opportunities & inadequate infrastructure for electricity, water, sanitation and transportation (IFAD, n.d.)
- Limited research is available on the health of coffee-farm workers



## **OBJECTIVES**

#### The purpose of this research was:

- To describe the primary reasons that coffee farm workers and their families access care at an onsite clinic
- To identify potential areas for health promotion in rural coffee farm workers



### **COMMUNITY OF INTEREST**

Rural Nicaraguan coffee farm workers and their families who access healthcare on the Santa Maura farm clinic



 Santa Maura farm has been family owned and operated for over 80 years; located in the department of Jinotega (north central Nicaragua)



• Santa Maura employs between 300-2,000 workers, depending on the time of year (peaks during harvest time between October-February).



Roughly 300 people live and work on the farm year round.



• Workers are provided with room, board and meals for the duration of their employment, but may also live off the farm if they choose.



In addition to clinic services, there is also a school on site for the children of the workers and two small bodegas where food and snack items can be purchased.

## The Santa Maura community has access to a nurse seven days a week

- The closest healthcare facility outside of the coffee farm is located one hour away via public transportation.
- Medications are available on-site (often on a limited basis) & are provided by the Ministry of Health.





#### Methods

- Retrospective chart review of clinic visits which occurred between July 2014-Oct.2014
- Systematic sampling was used
- The visits reviewed occurred either on the week prior to being paid or the week after being paid.
- An electronic standardized abstraction form was used and data were inputted by only one coder.
- Exclusion criteria included any visit entry with a missing diagnosis
- SPSS was used for data analysis

## **RESULTS**

#### N = 334 visits reviewed

- 66.5% Males
- 33.5% Females
- Ages ranged from 9 months to 90 years old
- 52% of visits occurred after a pay week
- More than half of the sample (58%) worked and/or lived on the Santa Maura farm; 11.4% worked and/or lived on surrounding coffee farms; 30.6% lived in surrounding towns
- ➤ 61% of visits were for acute reasons; 17% for chronic care and 22% were for dressing changes
- Excluding dressing changes, the most common reason for a visit were:
  - Common cold (8.7%)
  - > Trauma (6%)
  - Family planning (6%)
  - > Stress-related (5.4%)
  - ➤ Machete injuries (5.1%)
  - Pain- related (5.1%)
  - ➤ Intestinal parasites (4.8%)
- ➤ Only 1% of the visits reviewed were referred out for additional consultation (*n* = 3; surgical referral for hernia repair, hospital referral for snake bite and specialty referral for epilepsy study)

# Access to healthcare was primarily for acute reasons.

- 17% diagnoses could be waterborne
- ✓ 54.5% could be classified as visits related to occupational hazards
- ✓ 80% could be considered preventable.

#### Challenges

- Handwritten notes were extremely time consuming to read / No DOB used in records
- Logging of visits was organized in a way which was difficult to follow
- Separate logs used for referrals and medication
- Copies of scripts were available but ordered by payor and/or worker number (not patient name or date of visit)
- No clear organization of follow-up visits for the same patients (especially for dressing changes)

#### DISCUSSION

- Visits reviewed were between the months of July-October which is considered the off season for coffee harvesting.
  - This may not give a clear picture of the needs of migrant workers and most likely is more representative of permanent worker needs.
  - *Are the needs different?*
- For those living on the SM farm and in surrounding areas access to healthcare seems to be available.
  - Those living on the SM farm can maintain an open account for their healthcare expenses and make payments when able.
  - They are also able to purchase medication from the clinic pharmacy at a lower cost.
  - Are the limited referrals related to inadequacies of the system or inability of the patients to access a higher level of care?
- Potential areas of health promotion/education
  - Occupational safety for both workers and administration
  - Hand-washing to decrease waterborne diseases and other easily spread illnesses
  - Consider wellness programs for stress reduction and pain management
  - Continue to promote preventative care services

#### REFERENCES

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