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Community Needs Assessment: Improving
Population Health in the Dominican
Republic by Identifying Health Disparities
and Implementing a Maternal Child Health
Primary Care Clinic

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Purpose

- Describe how Doctor of Nursing Practice faculty conducted a community needs assessment in collaboration with a United States (US) medical residency program and a nongovernmental organization (NGO) partner in the Dominican Republic (DR).
- Discuss implementation and results of a 4 day medical mission trip to provide maternal child health primary care services to the underserved and disadvantaged populations in Parasio, DR.



Objectives

- **Objective 1: Describe the process of conducting a community needs assessment according to World Health Organization (WHO) guidelines to improve population health.**
- **Objective 2: Discuss the health care needs and recommendations for improving health based on the findings of a community needs assessment for families residing in Pariso, Dominican Republic.**



Objectives continued...

- **Objective 3: Discuss the implementation of a global Maternal-Child Health Primary Care Program based on the findings of a community needs assessment in a rural area of the Dominican Republic.**



Why Community Needs Assessment ?

- As DNPs a community health needs assessment prepares us to consider the state of health and health needs of a select population.
- Tool to guide our decision making regarding priorities about a population.
- Action planning for public health care programs to address priority issues.



Terminology

Clinical prevention is defined as health promotion and risk reduction/illness prevention for individuals and families.

Population health is defined to include aggregate, community, environmental/occupational, and cultural/socioeconomic dimensions of health.

Aggregates are groups of individuals defined by a shared characteristic such as gender, diagnosis, or age.

(AACN, 2006, p. 15)



Objectives of SHU Global Mission Trips

- 1) To gain an understanding of healthcare needs in international vulnerable populations, with the expectation that this understanding may be applied within vulnerable populations in the United States.**
- 2) To learn about and appreciate another culture while being immersed in that culture.**
- 3) To offer nursing and healthcare support to the host country which are deemed appropriate by our local community leaders.**



Objectives continued

- 5) Describe the role of epidemiologic findings in development of standards of care, organizational quality improvement, and public health policy in the host country and then apply it to the United States and their own community.**
- 6) Describe concepts of public health interventions and health screening programs in the host country and apply the concepts to the United States and their own community.**



World Health Organization (WHO)

- **“Health needs assessment can identify priority health needs, target resources to address inequalities and involve local people”.**
- **“Recognizes the important role of nurses/family health nurses in assessing and contributing to community health”.**

http://www.euro.who.int/__data/assets/pdf_file/0018/102249/E73494.pdf?ua=1



Purpose of Community Health Needs Assessment (WHO)

- **Plan and deliver the most effective care to those in greatest need.**
- **Apply the principles of equity and social justice in practice.**
- **Ensure that scarce resources are allocated where they can give maximum health benefit.**
- **Work collaboratively with the community, other professionals and agencies to determine which health issues cause greatest concern and plan interventions to address those issues.**



Community Needs Assessment

- **Describes the state of health of local people.**
- **Enables the identification of the major risk factors and causes of ill health.**
- **Enables the identification of the actions needed to address these.**



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5 Steps of Community Health Needs Assessment

- 1. Profiling**
- 2. Prioritize action plan**
- 3. Program/intervention planning**
- 4. Implementation**
- 5. Evaluation of health outcomes**



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Must Work in Partnership with the Community



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Profiling

- **What geographical area is included?**
- **What is the gender distribution?**
- **What is the age distribution?**
- **What is ethnic group(s) live there?**
- **What are the main religions of the area?**
- **Language? Literacy level?**
- **Morbidity & Mortality**



Profiling continued ...

- Who are the disadvantaged in this area?
- Who do not have access to health care?
- Who have unmet needs, and what are those?
- Other factors: poverty, income, environment, sanitation, housing, social networks
- What do the local people feel are priorities?



Collecting Information

- Formal and informal
- Surveys, questionnaires
- News reports
- Disease registries
- Community leaders
- Family assessments



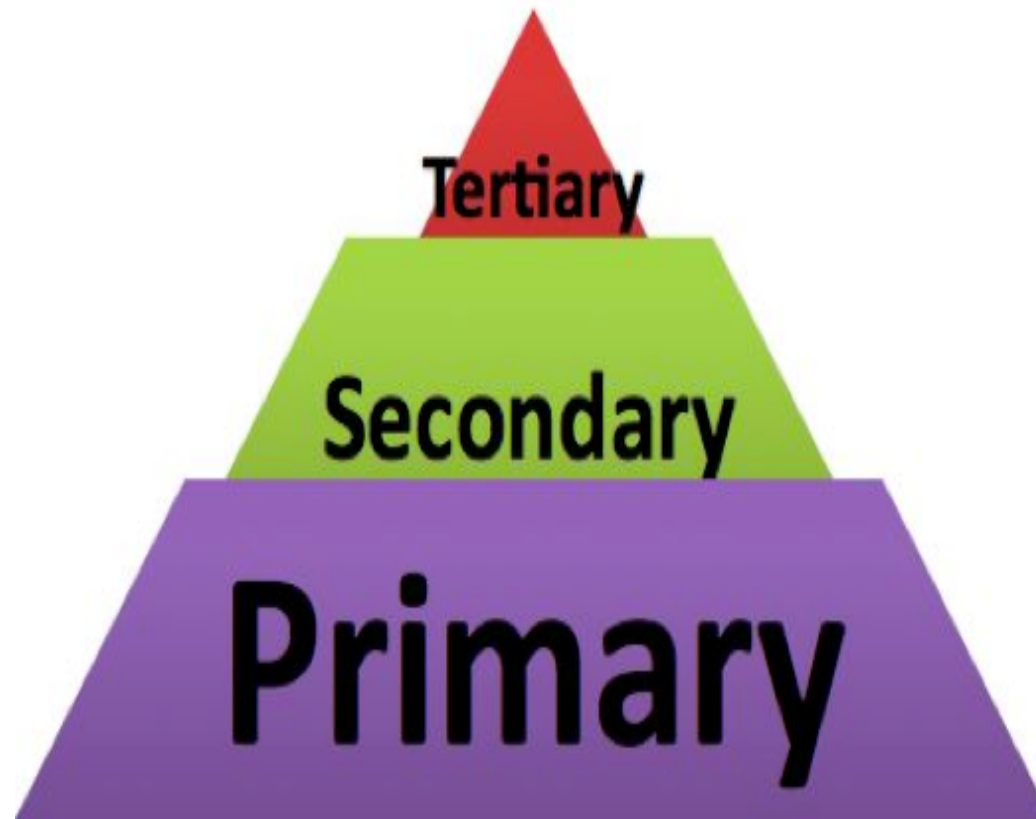
Analyzing the Information

- What does the data tell you?
- Who are most affected?
- What is having the most impact on the health of the community/individuals?
- Do interventions need to address basic sanitation and nutritional needs?
- Is there local expertise?
- Can skills be taught to community members?



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Three Levels of Prevention



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Primary Prevention

- **Primary prevention includes a cadre of activities that are aimed at preventing disease.**
- **This step is the most important of all the prevention levels when you consider that half of all deaths that occur are preventable.**
- **Lifestyle management, proper nutrition, school health, immunizations, and proper waste disposal are all forms of primary prevention.**



Secondary Prevention

- **Secondary prevention includes actions that lead to early identification, diagnosis, and treatment of disease.**
- **Health screenings and various detection activities are used in secondary prevention efforts.**
- **The United States Preventative Services Task Force (USPSTF) is a source of evidence-based information for DNP's to use in improving population health.**



Tertiary Prevention

- Actions that promote activities of daily living to limit progression and complications of disease are what constitute tertiary prevention.
- Due to aging of the population, health services will be focused on chronic comorbid diseases including cardiovascular disease, diabetes, cancer, dementia, depression, osteoarthritis, and lung disease (Van Leuven, 2012).



Planning & Evaluation

- **Goals & Objectives**
- **What are the baseline measures?**
- **Short term goals**
- **Long term goals**
- **Actions/Interventions**
- **Health Outcome goals**



Objective 2: Paraiso Health Assessment Survey

- **Discuss the health care needs and recommendations for improving health based on the findings of a community needs assessment for families residing in Paraiso, Dominican Republic.**



Collaboration

- **IDDI *Instituto Dominicano de Desarrollo Integral***
- **Western Connecticut Health Network Global Health**
- **Sacred Heart University, College of Nursing**

Goal

To conduct a community assessment to identify the health related needs and concerns of the community.

PAP (*Programa de Asistencia a Paraíso*)



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PAP (Programa de Asistencia a Paraíso)



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Profiling

1. Profiling
2. Prioritize action plan
3. Program/intervention planning
4. Implementation
5. Evaluation of health outcomes



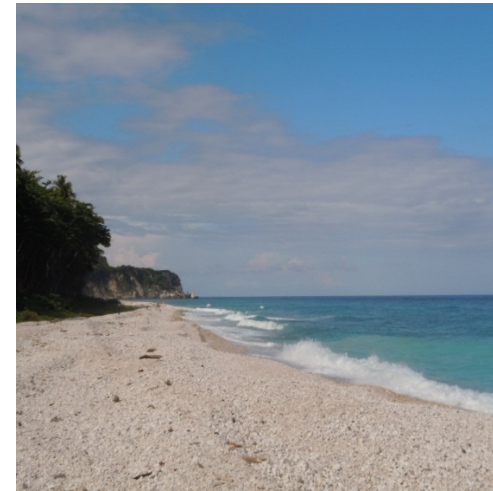
Profiling

- **March 2013 initial assessment of the resources available at PAP.**
- **Limited medical resources, basic necessities including electricity and safe water sources.**
- **“Emergent” services at PAP focused on respiratory and GI conditions.**



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Location in the DR



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The Community

- Spanish language
- Christianity- some cultural traditions
- Infant mortality 19.63 deaths/1,000 live births (World Fact Book, 2014)
- School Life expectancy 13 years (World Fact Book 2013)
- Child labor 10% (World Fact Book 2012)
- Unemployment rate youths- 29.4% (World Fact Book 2011) Adults 14.6% (World Fact Book 2014)
- HIV testing treatment not available in Paraiso
- High risk for major infectious disease (World Fact Book, 2013)
- Life expectancy 77.8 years (World Fact Book, 2014)
- Insurance is available, immunization and prenatal care is available through governmental programs.



Prioritize Action Plan

- To conduct a community assessment to determine the health care needs of the population living in Paraiso.
- Assessment adapted from a previous WHO survey conducted in the Dominican Republic and included demographic and health related variables.



The Survey: Conducted June 2014

- **Randomly knocked on doors (105 doors!!).**
- **The results of this community assessment are based on self-reported responses from the 105 families interviewed.**
- **Represents a total 504**



Seven Unique Sub Communities

- Las Callas
- Las Callas
- Altagracia
- Los Patos
- Centro de Paraiso
- El Pley
- Ojeda



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Centro de Paraiso



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“Anyone Home?”



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Demographics

- **Average family size = 5**
- **Female head of household was the primary historian**

Mean age (in years)	
Female head of household	46.3
Male head of household	48.7
Female dependents	13.7
Male dependents	16.3



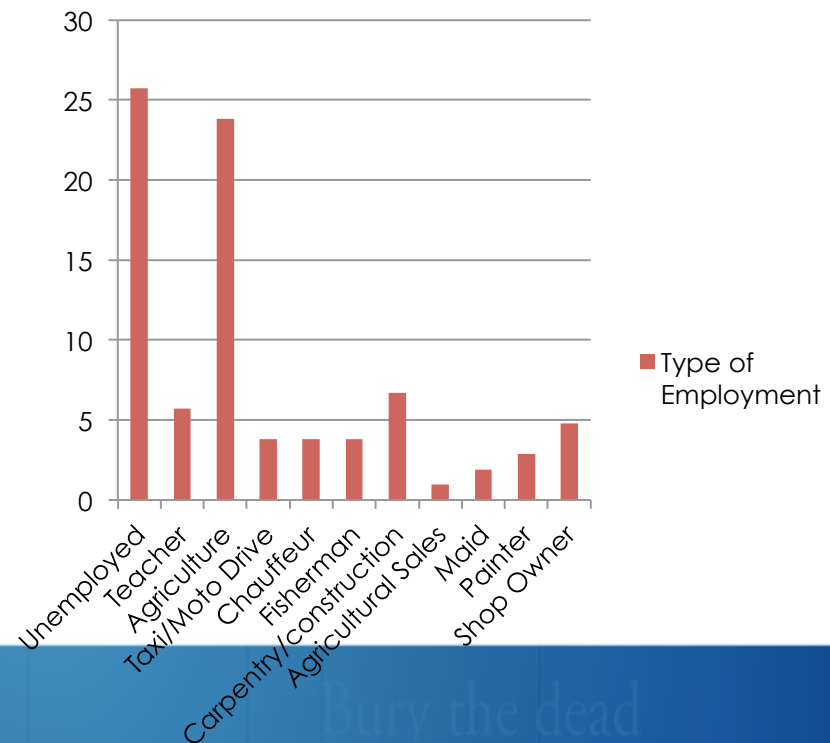
Life in Paraiso

Education & literacy

- Limited education
 - Highest level is elementary (30.77%)
 - No education (30.10%)
- Majority of children are in school (67%)
- 69% of the families responded that all members of the family were able to read and write
- 19% of the families, only the children could read and write

Economy

Type of Employment



Lifestyle

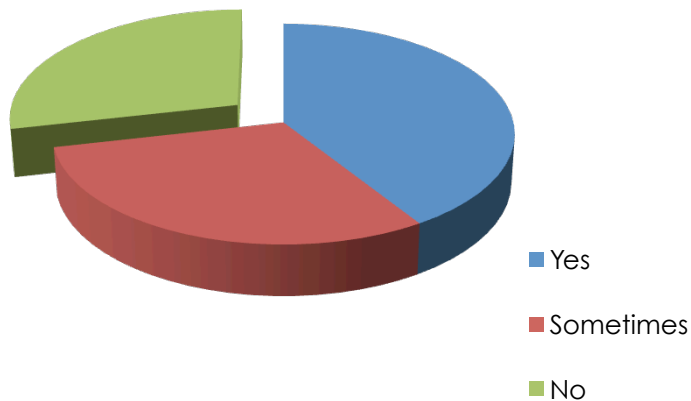
- **Nearly 90% of those surveyed did not smoke.**
- **Over one third of the families reported that all family members within the household consumed coffee.**
- **The majority of respondents (64.76%) reported that none of the family members drank alcohol.**



Basic Needs

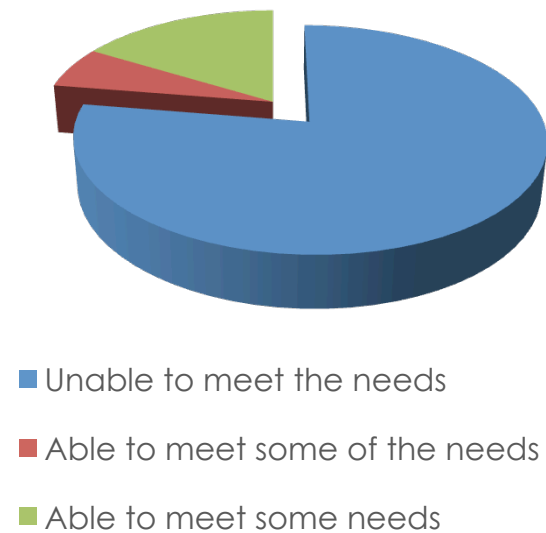
Hunger

Do you go hungry due to lack of available food?

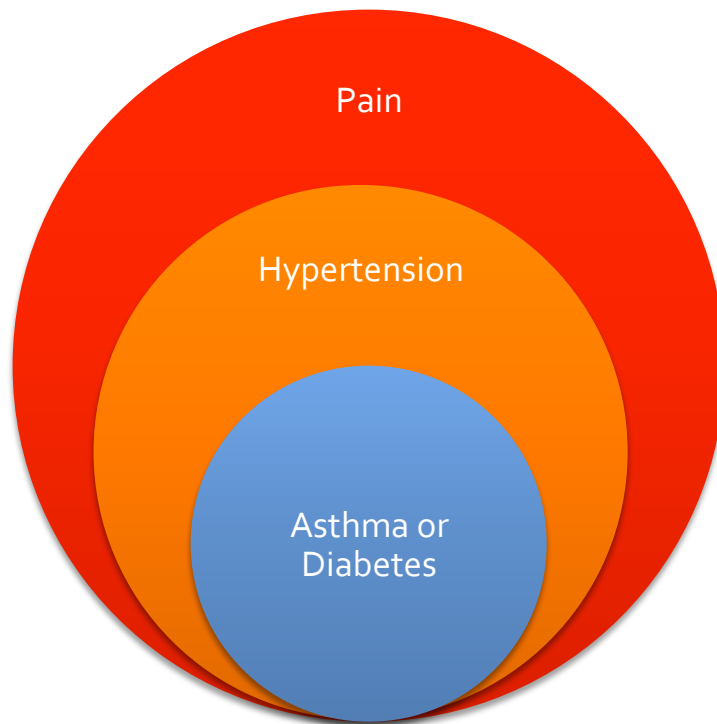


Family

Are you able to meet the needs of your family?



Self-reported Health Status

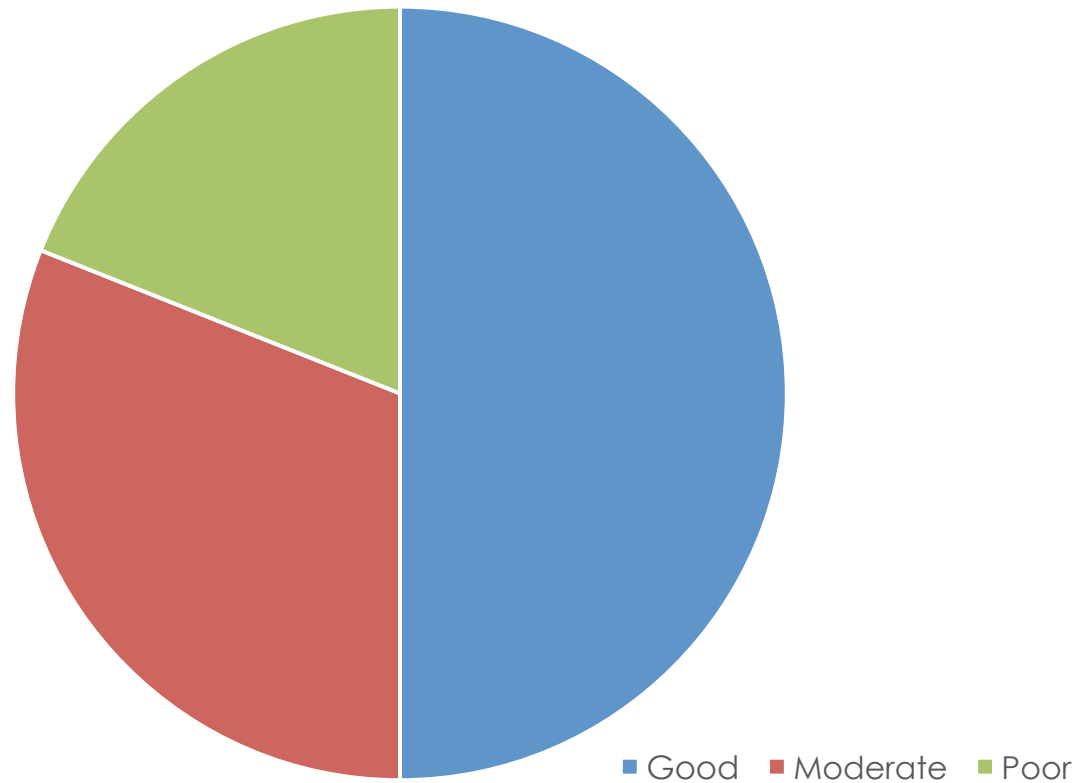


MOST PREVALENT SYMPTOMS

- ▲ **PAIN**
56.19% reported pain in last 3 months
- ▲ **FEVER**
50.48% reported fever in last 3 months
- ▲ **SLEEP ISSUES**
42.31% reported sleep issues in the last 3 months
- ▲ **COUGH**
38.10% reported coughing in the last 3 months
- ▲ **DEPRESSION/DECREASED ENERGY**
33.01% reporting depression in the last 3 months



“Generally, how is your health today”?



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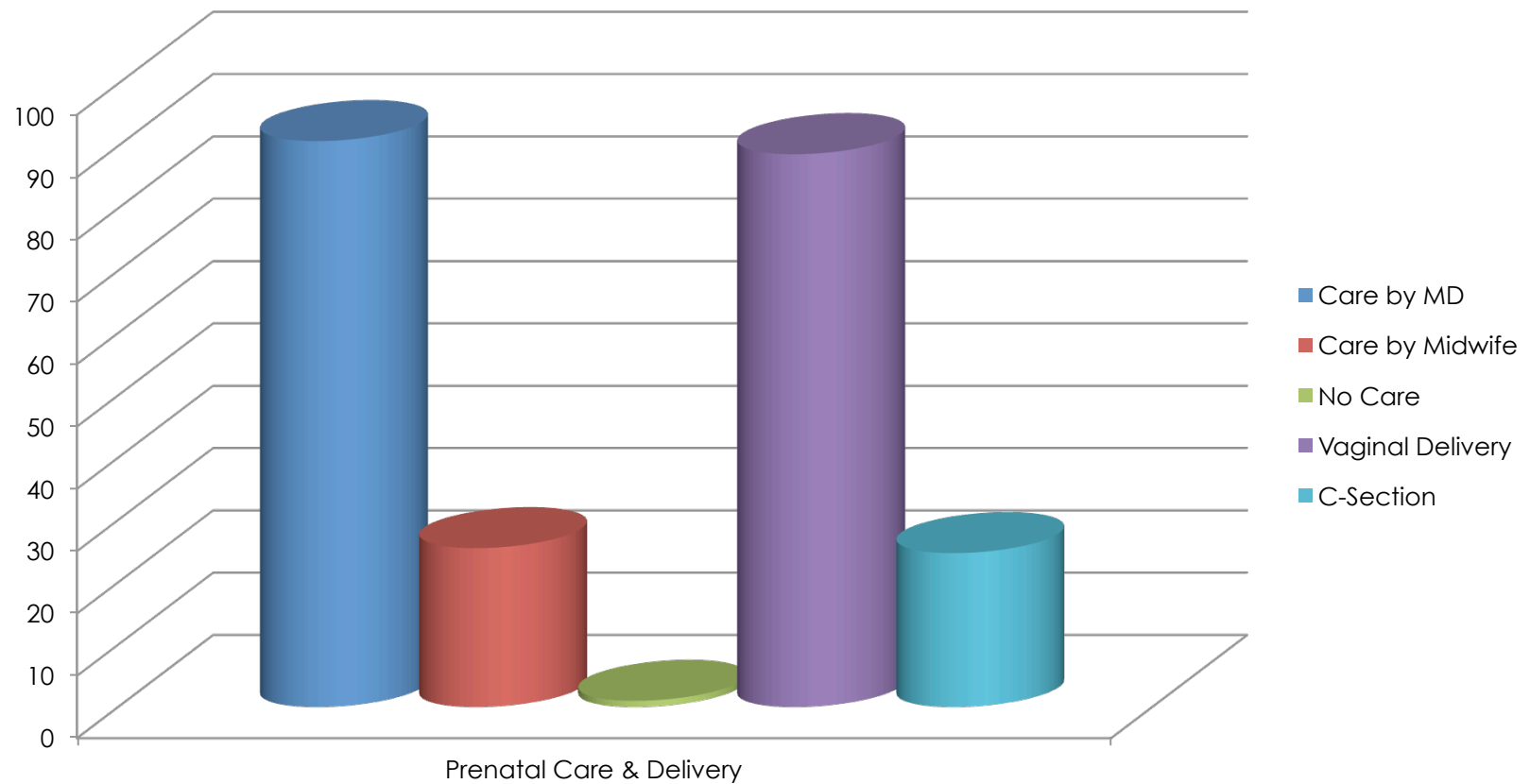
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Women's Health



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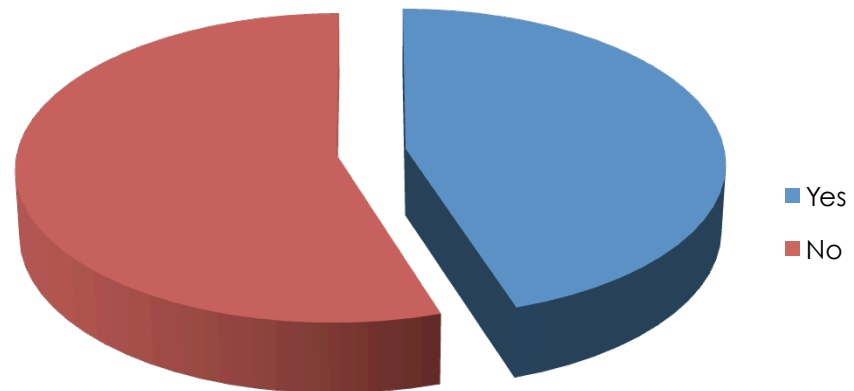
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Children's Health

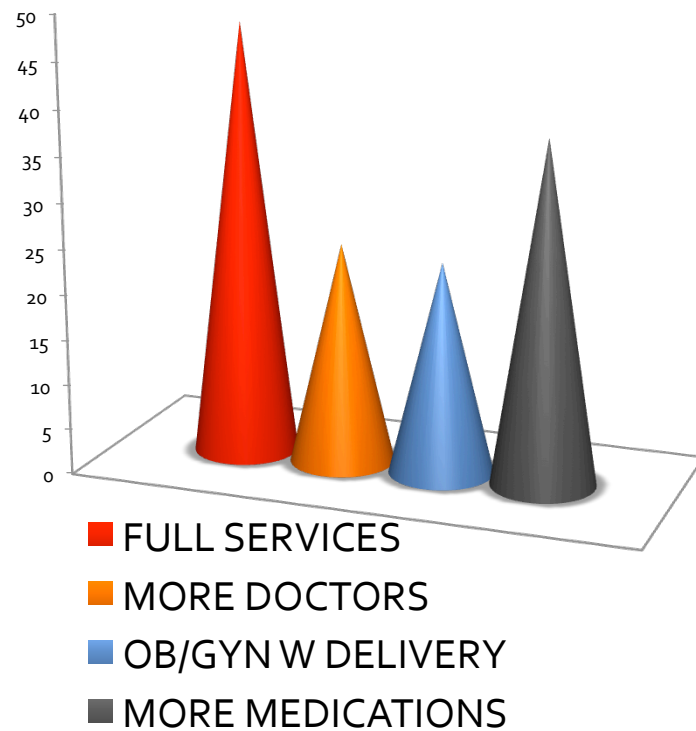


Concerned about Children's Growth



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Health Care Services Desired



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Results of Community Needs Assessment

- Significant concern for their economic situation.
- Concern for health of their families.
- Lack of access to adequate healthcare.
- Desire for access to full hospital services in Paraiso.
- Current nursing staff and level of training is inadequate for quality of care.
- Need for hospital equipment inventory, consultation with specialty experts and the implementation of nursing education.



Program/Intervention & Planning

- After completion of the 2014 survey, recommendations were shared with the key stake holders of PAP.
- Short and long term goals were determined.
- Request to have Sacred Heart University provide a health clinic to provide needed care and to further develop a trusting and collaborative relationship.



Objective 3

- **Discuss the implementation of a global Maternal-Child Health Primary Care Program based on the findings of a community needs assessment in a rural area of the Dominican Republic.**



Paraiso Community Needs and SHU College of Nursing Clinical Needs

- **Shortage of primary care training sites in the US for FNP students.**
- **Spring 2015 Maternal Child Health rotations scheduled at SHU.**
- **Community of Paraiso concerns for health of their families.**
- **FNP Program Director collaborated with DNP faculty and Director of Global Health in the CHP.**



Program Implementation

- **Preplanning stateside!!!**
- **Mission to target the needs of the community.**
- **DNP faculty team collaborated with Jomar Florenzan MD from IDDI/Danbury Hospital.**
- **Permissions obtained from DR Ministry of Health.**
- **Traveled from NYC to Santo Domingo and drove 5 hours south to Paraiso, DR**



Medical Mission Team

- 10 MSN family nurse practitioner students primarily enrolled in 3rd year clinical course.
- 5 nursing faculty: CNS in pediatrics, FNPs and CNM.
- 2 community physicians
- 4 community translators
- 25 community volunteers from DR Civil Defense and DR Red Cross



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Volunteers and Translators



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TEAM PHOTO



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Pre-Clinic Preparation

- **Clinic preparation at Hospital PAP.**
- **Student faculty preceptor assignments.**
- **Review of medications.**
- **Review of pediatric milestones.**
- **Review of pregnancy and prenatal care.**
- **Review of primary care protocols for GYN and Pediatric populations.**
- **Review cardiovascular risk assessment.**



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Day One: Start!!!

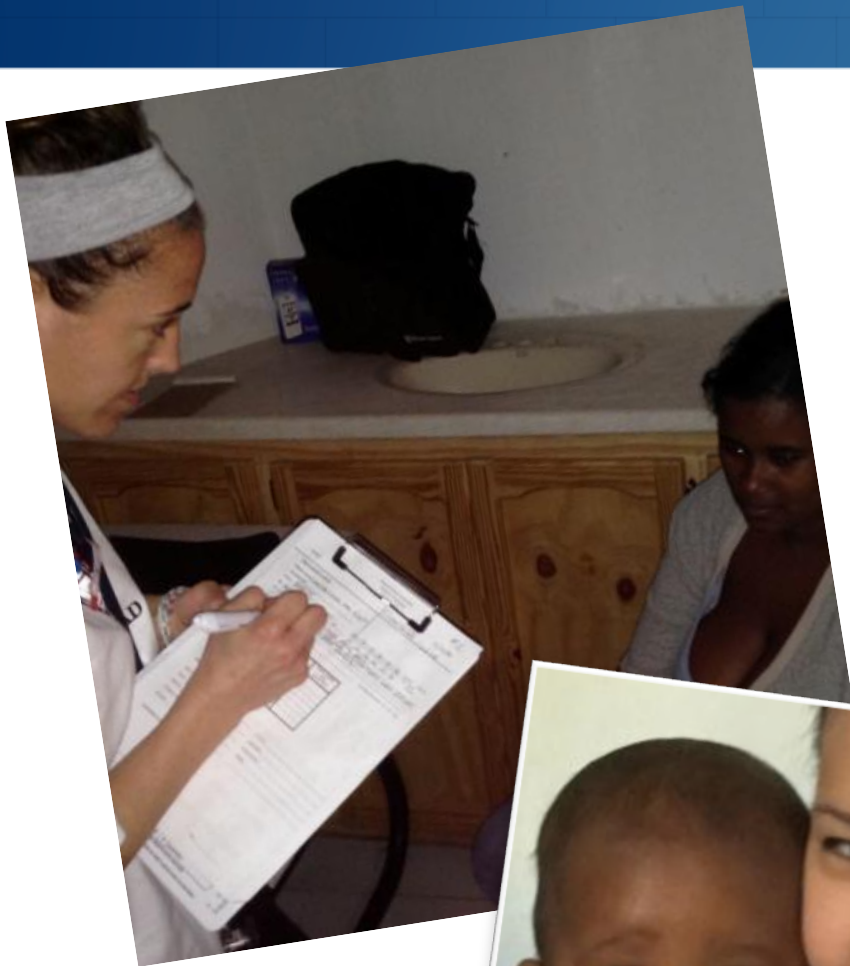
- OB/GYN clinic 8:30AM - 12:30PM
- Pediatric clinic 1:00 PM- 5:00PM
- Cardiovascular screening day 4.
- Indoor and Outdoor waiting area
- Triage Area
- Four clinic rooms
- One prenatal room
- Laboratory
- Pharmacy



Days 2,3 and 4

- **Process same: women's health in AM and pediatrics in PM.**
- **Day 4: Cardiovascular Risk Assessment conducted based on community assessment conducted in 2013.**
- **Hypertension was in the top 10 of 1409 patients seen in the ED in January 2013.**
- **All cardiology resources in Barahona.**





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Evaluation of Health Outcomes

- Immediate- health status and needs identified during clinic.
- Intermediate- recommendation for follow up, referrals.
- Long term- changes in the provision of care and follow up plans for individuals with health care needs.

Results

- **Total of 256 patients seen.**

Date	Number Patients	Percentage %
March 23, 2015	73	29%
March 24, 2015	60	23 %
March 25, 2015	60	23 %
March 26, 2015	51	20%
Not specified	12	5%
Total	256	100%



Most Common Diagnoses

- 81 diagnoses were reported
- Vaginitis (N=31)
- Dermatologic conditions (N=22)
- Parasites (N=32)
- Upper Respiratory Infections (N=28)
- Hypertension (N=23)



Women's Health

- Pap smears (N=32)
- Pre-natal Visits (N=18)
- GYN complaints (N =31)
- Other



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Pap Results

Comments	# Patients
Frotis with changes associated with HPV infection	2
Atypia of undetermined significance	1
Atypia of undetermined significance, NIC I associated with HPV infection	1
Frotis negative for malignant cells, Mild Inflammatory reaction	10
Frotis negative for malignant cells, Moderate Inflammatory reaction	8
Frotis negative for malignant cells, Severe Inflammatory reaction	10



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Pediatrics

- N=116
- URI (N=28)
- Parasites (N=32)
- Pregnancy & Prenatal (N=8)
- Anemia (N=4)
- Other



Cardiovascular Risk Assessment

- **WHO and AHA Guidelines**
- **Gender, BP, Random BS, BMI, Abdominal Girth, Tobacco, Alcohol, Exercise, Cholesterol history, family CV risk history**
- **N= 51**





Questionnaires

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Weight, Height and Girth Station



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Findings Cardiovascular Risk Assessment

- High risk for cardiovascular diseases, uncontrolled hypertension, diabetes and obesity (N= 21)
- Congestive Heart Failure (N=2)
- Down Syndrome with a congenital heart Defect (N=1).
- Patients with hypertensive crisis and high blood glucose levels where referred to the emergency department for acute management (N=4).



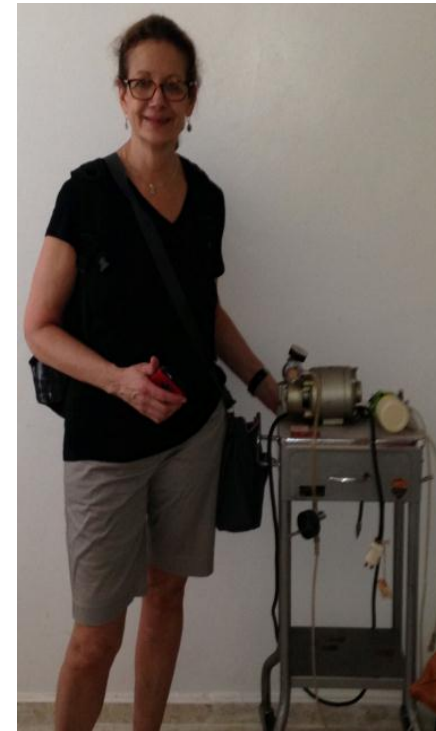
Cardiac Referrals

- At risk patients referred to special clinic held in Parasio on April 10, 2015 sponsored by “*Fundacion Corazones Unidos*” (Heart Together Foundation) and Heart Care International out of Santo Domingo (N=12).



Program Evaluation

- Follow-up & Change
- Community Response
- Limitations
- Recommendations



Follow-up & Changes

- The cardiologist & pediatrician were reintegrated to the hospital as of May 1, 2015.
- Negotiations are taking place for an OB/Gyn provider.
- The follow-up of each seen patient is being done by general medicine, pediatrics and cardiology as outpatient consults in the PAP Hospital and Barahona.
- The SHU primary care documentation forms were incorporated into the medical records of the patients that registered for the Hospital.



Community Response

- Interviews where performed on 20 patients during follow up visits to the hospital.
- Adults (N=20)
- 12 of the respondents also brought their children to the pediatric clinics.



Community Perceptions

- ***“This was very helpful to me and my kids otherwise I wouldn’t be able to access medical services due to the cost (don’t have medical insurance)”***
- ***“They really take the time to evaluate me and my kid, and had the interest in explaining to me things in a way that I can understand, besides the language barrier with the help of the translators I could understand.”***



More Community Perceptions

Negative Responses:

- ***“The room was uncomfortable and dark due to lack of electrical power”***
- ***“The tickets system where not organized”***
- ***“I felt uncomfortable with male translators in the room; the nurses respect that and make him go out of the examining room”***



Evaluation of Pap Screening

- **PAP smears forms didn't have the patient phone number & some names were incorrectly written.**
- **On receipt of the pap smears results, an announcement saying that the pap smears results were available and placed at the main hospital and emergency department entrance.**
- **21: 32 patients (66%) returned to the hospital to search the results. Recommendations, treatment and referral were given to those patients.**
- **3: 4 patients (75%) with positive results for HPV know their results.**
- **Some growth charts were missing patient names.**



Community Recommendations

- Create an effective ticket system to ensure order and equal opportunity for the community.
- Community volunteers to establish a registration system to obtain comprehensive demographic data on all patients.
- If the patient has a medical record (MR) in the hospital, put the number on the medical assessment form .
- Community to make efforts to repair (electricity, bulbs, gooseneck lamps, screens, etc...).
- Develop a “Patient Satisfaction” form to be completed after care.



DNP Faculty Recommendations

- Ensure NGO leader training & preparation to adequately support US medical team.
- Increase community preparation and obtain “buy in”.
- NGO and community to assist DNP faculty with consistent resources and referrals.
- Increase training and preparation of community translators.
- Community to prepare hospital facility prior to nursing team arrival.
- Community leaders to identify high risk families and assist with transportation to clinic.
- Extend mission to minimum of 7 days to collaborate with NGO and community leaders on referrals and follow-up care.
- Ensure health and safety of SHU students.



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Thank You

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References

- American Association of Colleges for Nursing. (2006). *The essentials of doctoral education for advanced nursing practice*. Washington, DC: Author.
- American Heart Association [AHA] Risk Assessment Guidelines retrieved from http://my.americanheart.org/professional/StatementsGuidelines/PreventionGuidelines/Prevention-Guidelines_UCM_457698_SubHomePage.jsp
- Maurer, F. A., & Smith, C. S. (2009). *Community/public health nursing practice: Health for families and populations* (4th ed.). St. Louis, MO: Saunders Elsevier.
- IX Censo Nacional de Poblacion y Vivienda (2010) retrieved from http://censo2010.one.gob.do/resultados/Resumen_resultados_generales_censo_2010.pdf



References (2)

- World Fact Book (2011, 2014) retrieved from <https://www.cia.gov/library/publications/the-world-factbook/>
- World Health Organization [WHO] (2001) Community Health Needs Assessment retrieved from http://www.euro.who.int/__data/assets/pdf_file/0018/102249/E73494.pdf?ua=1
- World Health Organization [WHO] (2007) Prevention of Cardiovascular Disease: Guidelines for Assessment and Management of Cardiovascular Risk retrieved from http://www.who.int/cardiovascular_diseases/guidelines/PocketGL.ENG.LISH.AFR-D-E.rev1.pdf?ua=1
- World Health Organization [WHO] (2003) World Health Survey retrieved from <http://www.who.int/healthinfo/survey/whsdom-dominicanrepublic.pdf>

