

# **From Global to Local: Development and Utilization of a Local Student- Run Free Clinic to Provide Interprofessional, Cultural, and Clinical Global Health Education for Medical Students**

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# University of Central Florida College of Medicine

## *Medical Students Providing Across Continents (MedPACT)*



**MEDPACT**  
..... GLOBAL HEALTH .....  
AT THE UCF COLLEGE OF MEDICINE

# The Dominican Republic Clinic



Source: <https://med.ucf.edu/global-health/photos/dominican-republic-2015/>

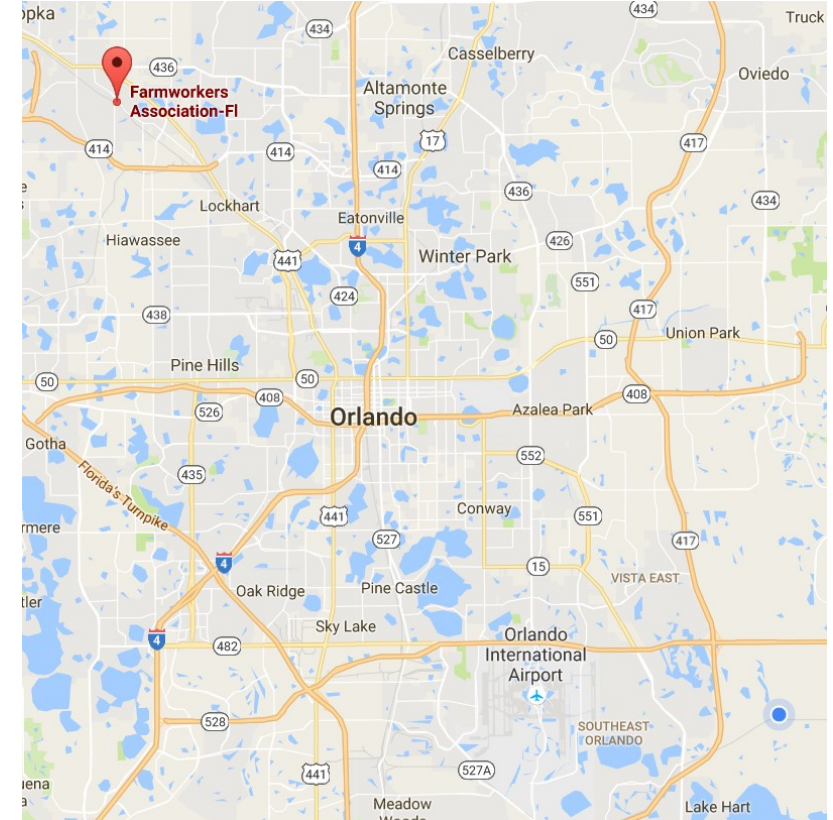
- First *international* service trip by MedPACT
- **Multispecialty** primary care clinics held in local elementary schools within the D.R.
- Partnership with medical students from UCNE (local medical school)



# From Global to Local Service Learning

## *The Transition*

- Zika virus epidemic in 2015-2016
  - Risk of bringing vector pool back to Central Florida
  - Risk for most volunteers: individuals of childbearing age
- Transformation of the D.R. *international* to a **local** Apopka community medical service
  - UCF College of Medicine student surveyed the Apopka farmworkers
  - UCF College of Nursing presence in the Apopka community



# “Glocal Care”

- Global health experiences that serve the local community
- Often modeled on prior short-term international medical service trips
- Purpose
  - Cultural competency
  - Language skills acquisition
  - Team building
  - Planning and organization
  - Learning about fundraising, liability
  - Address desire to provide service in an evidenced-based manner
  - Promote a desire to do service in the future

# Why Apopka?

- Identification of farmworkers needs in 2011 survey
- Does not involve international travel or risk of Zika
- Community Nursing Coalition presence
- Farmworkers Association - committed community partner





# The Apopka Community

- Total Pop.: 90,983
- Low-Income Pop.: 38.47%
- Low-Income not served  
by Health Centers: 27.24%
- Uninsured not served  
by Health Centers: 12.64%
- Non-white: 31.09%  
Hispanic: 26.24%  
Black: 16.89%
- Average annual salary of a farmworker:
  - \$2,000-\$5,000 if undocumented
  - \$5,000-\$10,000 if documented



# From Global to Local Service Learning

## *Need of LOCAL Medical Care*

- Leading causes of death:
  - Heart disease, cancer, and stroke
- Social determinants of health:
  - High number of fast food restaurants
  - Low income and rural communities
  - Low numbers of residents with college degrees
- The Apopka Clinic attempts to address these concerns through **education** and **prevention**

Source: UCF College of Nursing Needs Assessment, 2017



# **The Apopka Clinic**

## ***Educational and University Partners***

- University of Central Florida
  - College of Medicine
  - College of Nursing
  - School of Social Work
  - Physical Therapy Program
- University of Florida
  - College of Pharmacy



**College of  
Medicine**

UNIVERSITY OF CENTRAL FLORIDA



**Physical  
Therapy**

UNIVERSITY OF CENTRAL FLORIDA



**College of  
Nursing**

UNIVERSITY OF CENTRAL FLORIDA

**UF** UNIVERSITY of  
**FLORIDA**  
College of Pharmacy



**School of  
Social Work**

UNIVERSITY OF CENTRAL FLORIDA

# **The Apopka Clinic**

## ***Partnering with the Community***

### **Community Partners**

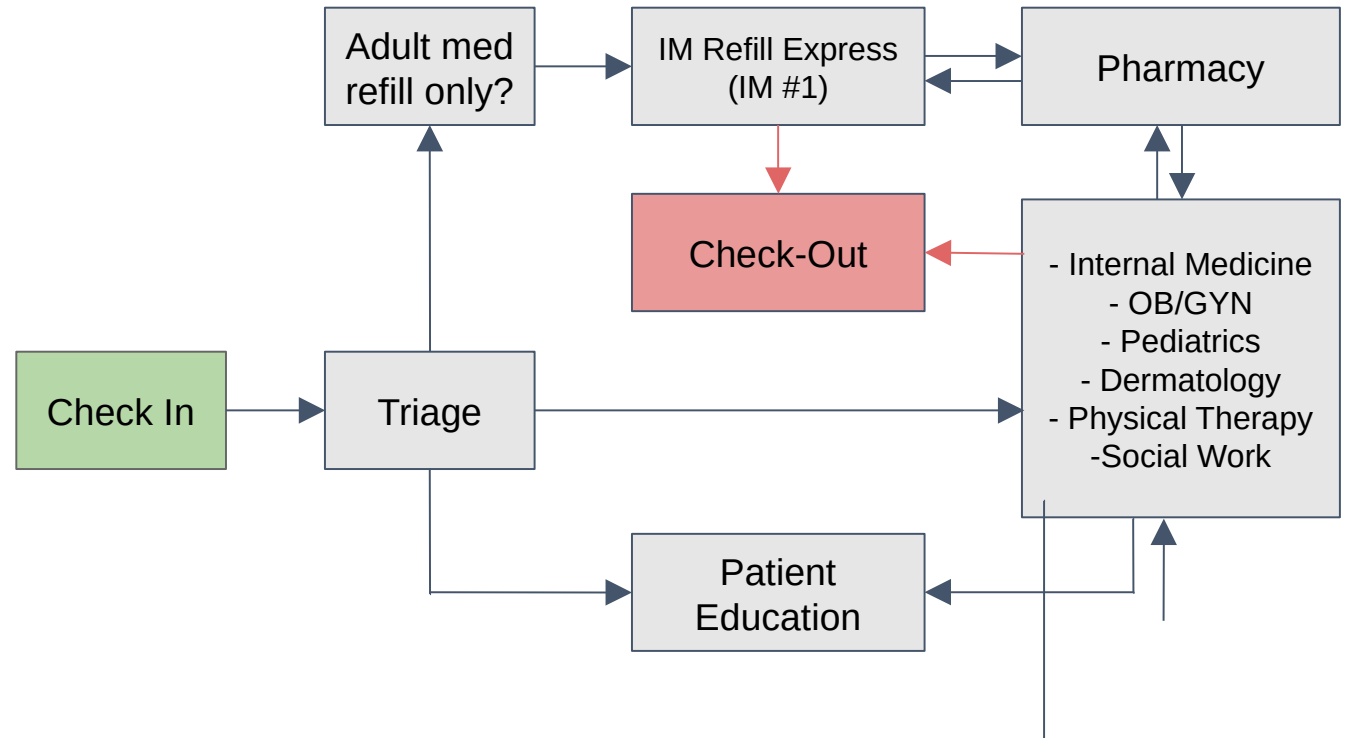
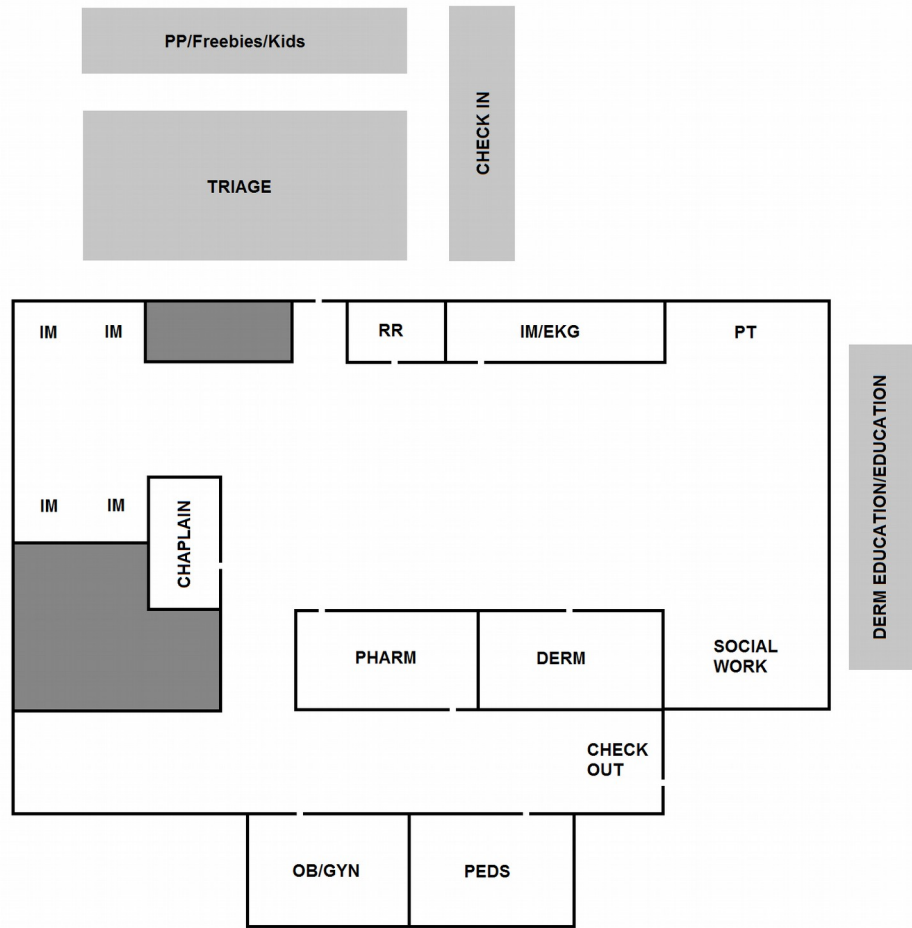
- Planned Parenthood of Central Florida
  - Grace Medical Home
  - Shepherd's Hope
  - Farmworker Association of Florida
  - Lions Club
  - Orange County Public Schools
- All students work alongside these partners at each clinic
    - Awareness of available resources for patients
    - Additional interprofessional educational experiences
  - Clinic organizers and the involved schools can develop relationships with these community partners

# **The Apopka Clinic: Organization**

- Weekly organizational meetings at the College of Medicine for organization of supplies, recruitment of faculty, EMR organization
- Student and faculty-led educational sessions train volunteers on cultural competency, EMR, clinic structure
- Clinics held at the Farmworker Association of Florida office
- Four Apopka clinics to date
  - July 2016, November 2016, March 2017, July 2017



# The Apopka Clinic: Clinic Layout and Flow

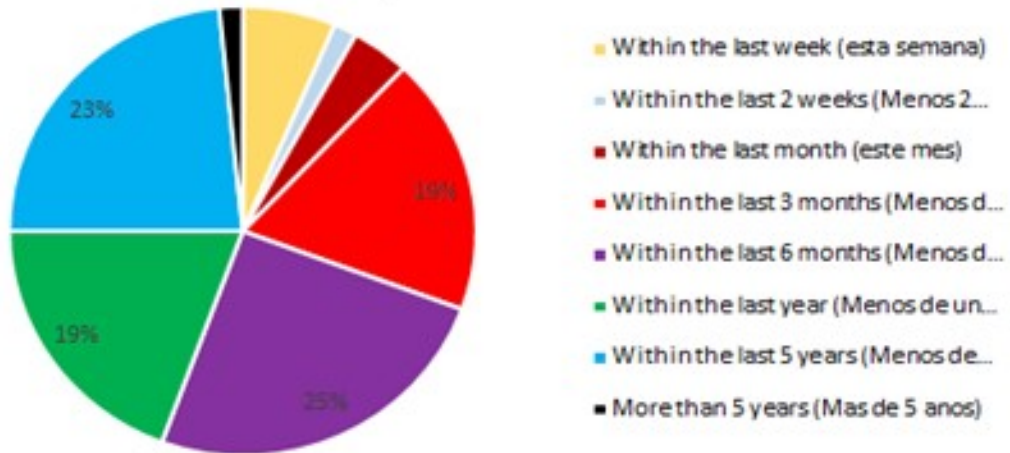


# Apopka Clinic Video



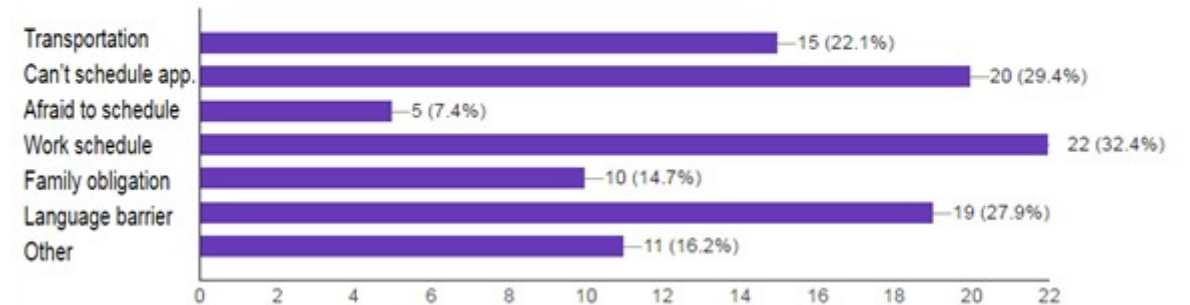
# Access and Barriers to Care in Apopka: Survey of Patients Presenting for Care

When was the last time you saw a physician?  
¿Cuándo fue la última vez que visitaste a un médico? n=124



What barriers have you had to accessing care? ¿Qué barreras ha tenido en el acceso a la atención médica?

(68 responses)





# The Apopka Clinic: The Numbers

	July 2016 (2 clinics)	November 2016	March 2017	July 2017
Number of patients	183	45	76	89
Adult	79%	89%	74%	80%
Pediatric	21%	11%	26%	20%
Gender F/M	58%/42%	64%/36%	67%/33%	69%/31%

# The Apopka Clinic: Finances

- The Apopka Clinic is extremely **cost efficient** and effective
  - **Student cost** varies enormously
    - D.R. was approximately \$1000/student
    - Apopka is essentially **free for students**
- Allows for at least **three** local clinics per year rather than an annual trip
- Allows for over **100** student volunteers per clinic rather than 40 student volunteers per trip to the D.R.
  - Allowed implementation of **social work** and **physical therapy** students and faculty volunteers

# D.R. Trip vs. Apopka

	Dominican Republic	Apopka- July 2016	Apopka- Nov 2016	Apopka- March 2017	Apopka- July 2017
Cost	\$2733	\$947	\$650	\$670	\$843
Total providers	40	120	126	92	107
Patients served	144	92	46	66	89
Common Patient Complaints	Bacterial/ Fungal/ Parasitic Infections, Diabetes, Hypertension, Vitamin Deficiencies	Diabetes, Headaches, Hypertension, Extremity Weakness, Rash, Vitamin Deficiencies	Diabetes, Headaches, Hypertension, Extremity Weakness, Rash, Vitamin Deficiencies	Dry eyes, Near/ far sightedness, Back pain, Blurred vision, Cough, Headache, Rash	Back pain, Rash, Abdominal Pain, Headache, Skin hyper/hypo-Pigmentation, Hypertension



# Expectations as an Educator

- Assess needs of the community
- Develop a plan for the clinic
  - Select interdisciplinary team of faculty and students
  - Establish physical layout of the clinic making use of existing structures
  - Collect supplies
  - Develop a pharmacy plan (OTCs, prescriptions, pharmacy partners)
- Provide pre-clinic education and orientation
- Develop an EMR to keep records
- Conduct a 360° assessment of patients and providers to allow iterative improvement

# Service Learning

- Emphasis on service learning rather than community service, students gained:
  - Resource utilization: Active participation in thoughtfully organized experiences
  - Academic curriculum integration
  - Opportunities for application of skills and knowledge
  - Development of a sense of caring for others
- Focus on community needs and school-community coordination

Source: Billig SH. Research on K-12 school-based service-learning. Phi Delta Kappa. 2000;81:658–664

# Preparing Students for Practice

- Family medicine is inherently multidisciplinary and traditionally a field that most supports the healthcare needs of underserved and rural areas
- Training in cultural competency, clinical skills, and interprofessionalism:
  - Provides foundation for future work with underserved populations
  - Develops clinical and social skills for interdisciplinary work

Source: Rodgers, D. V., Wendling, A. L., Saba, G. W., Mahoney, M. R., & Speights, J. S. B. (2017). Preparing Family Physicians to Care for Underserved Populations. *Family medicine*, 49(4), 304-10.



# Defining Cultural Competency

- *Cultural and linguistic competence*: “a set of congruent behaviors, knowledge, attitudes, and policies that come together in a system, organization, or among professionals that **enables effective work in cross-cultural situations**”
- “Combines the tenets of **patient/family-centered care** with an understanding of the social and cultural influences that affect the quality of medical services and treatment”

Source: AAMC; Cross, T L et al. Towards a Culturally Competent System of Care: A Monograph on Effective Services for Minority Children, National Center for Cultural Competence, Georgetown University, 1989.

# Increasing Cultural Competency



- LCME standard: medical students should learn to recognize and appropriately address gender and cultural biases in health care delivery, while considering first the health of the patient.

Source: <https://dailyplateofcrazy.com/wp-content/uploads/2015/07/Effort-vs-Results.jpg>

# Increasing Cultural Competency

- Opportunities for:
  - Exposure to Medical Spanish
  - Interactions with Afro-Caribbean and Latino patients
  - Interactions with faculty and students from other healthcare disciplines
  - Understanding and addressing problems facing local communities (e.g. fear as a barrier to care; mental health)

# Medical Spanish



- 16.5 million people in the U.S. are Spanish speakers with limited English proficiency - FL is one of the top states
- Spanish is the most widely spoken non-English language in the U.S.
- 60% of students reported an improvement in their Medical Spanish proficiency after the most recent Apopka Clinic
- DR trip also provided an immersion opportunity to learn Spanish and practice Medical Spanish

Source: 2010 U.S. Census Data

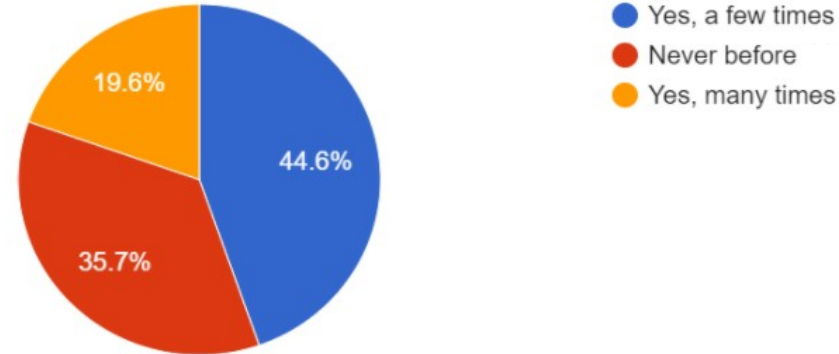


# Cross-Cultural Interactions

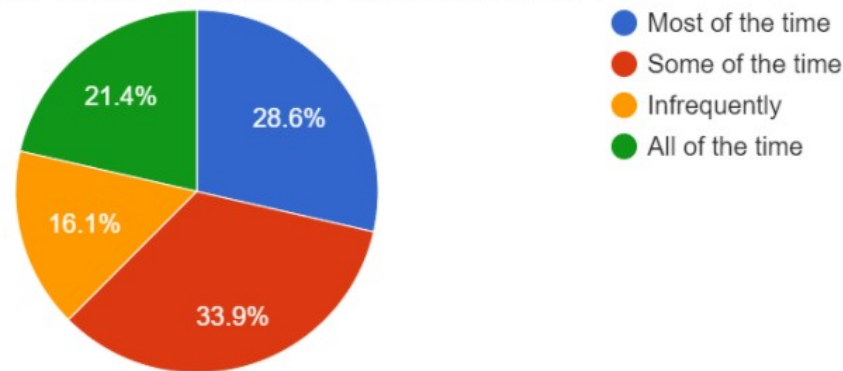
- Essential part of increasing cultural competency in medical students
- Unique location and population → provides the chance to “recognize and address cultural biases while considering first the health of the patient”
  - Students interact directly with patients
  - Students work directly under faculty and senior students who have experience working with this population
- e.g. Haitian population and speaking about “death” when speaking about flaking skin cells

# Student Perspectives and Exposure

Have you had opportunities to serve Latino-Caribbean populations in a medical setting before this clinic?



Did you talk to patients about aspects of their lives other than their medical conditions?



# Clinical Education: Apopka vs. the DR

	Apopka*	DR*
Establishing “rapport” with patients	75%	88%
Obtaining a complete medical history from patients	75%	81%
Performing a thorough physical examination	55%	65%
Properly treating a specific diagnosis	70%	80%
Educating patients about specific conditions, their therapies, and prognostic impact	80%	80%

	Apopka*	DR*
Properly presenting a patient to the clinical team	60%	88%
Generating a relevant differential diagnosis	40%	88%
Arriving at a final diagnosis	50%	80%
Managing patients with multiple medical conditions	50%	85%

\* percentage of students reporting an improvement in the respective clinical skill

# Exposure to Latino-Caribbean Population

	% of students who had never worked with a Latino-Caribbean population
Prior to 2015 DR Trip	42.3%
Prior to Summer 2016 Apopka Clinic	45.8%
Prior to Spring 2017 Apopka Clinic	31.8%



# Problems Facing the Community

- Fear and sociopolitical climate
- Skepticism in healthcare
- Transportation
- Financial barriers
- Language barriers
- Important: building **trust** with the community we serve
  - Community partners
  - Pre-clinic training sessions
  - Consistent care with regular clinics





# Interprofessional Education (IPE) Principles

## IPE Principles

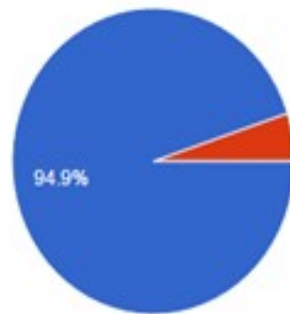
- Teamwork
- Communication
- Collaboration
- Understanding
  - Roles
  - Responsibilities
  - Scope of practice
- Multidisciplinary clinics
  - Social work
  - Nursing
  - Medicine
  - Optometry
  - Physical therapy
  - Pharmacy
  - Medical translators
- Interdisciplinary teams
  - Triage
  - Patient care teams
  - Organizational teams

Source: Bridges, D., Davidson, R. A., Soule Odegard, P., Maki, I. V., & Tomkowiak, J. (2011). Interprofessional collaboration: three best practice models of interprofessional education. Medical education online, 16(1), 6035.

# The IPE Experience

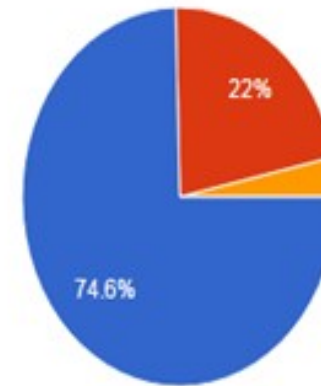
How would you rate the value of involving different disciplines in one clinic (e.g. medicine, nursing, pharmacy, physical therapy, occupational health, social work)?

(59 responses)



- Very Valuable
- Somewhat valuable
- Neutral
- Somewhat invaluable
- Not valuable at all

Do you feel that your inter-professional team collaborated well? (59 responses)



- Yes, very well
- Yes, somewhat
- Neutral
- No, not very well
- No, not at all

# The Apopka Clinic: The Student Experience

- Develop these skills early and continuously cultivate them into our future careers as medical professionals.
  - **Cultural competency**
  - **Clinical Skills**
  - **Interdisciplinary** care team of 5 providers
- Service learning rather than simply participating in community service
- Financial Benefits

# **The Apopka Clinic**

## ***The Patient Experience***

- **Holistic care**
  - Multispecialty
  - Chaplain services
  - Long-term follow-up (e.g. Grace Medical Home, Shepherd's Hope etc.)
- **Individualized care**
  - Each patient care room consists of: preclinical year medical student, clinical year medical student, pharmacy student, social work student

# The Apopka Clinic: Looking Forward

- Education goals
  - Enhancing clinical education (faculty-student interactions)
  - Involving students earlier in training
  - Improving Spanish through interactive patient sessions and Spanish Lunch Hour
  - Student generated research on patient satisfaction and QI metrics
- Clinic and patient care goals
  - Mobile-App based patient flow
  - Working with Grace Medical Home and Shepherd's Hope to find medical homes for patients with complex medical needs
  - Assessing pharmacy pickups and medication compliance
  - Providing dental care
  - Bilingual nutritionist at future clinics



# Acknowledgements

- Jeannie Economos and the Farmworker Association of Florida
- Dr. Heather Peralta and the UCF College of Nursing
- UCF School of Social Work
- UCF Physical Therapy
- UF College of Pharmacy
- UCF College of Medicine



# Thank you! Questions?



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# For more information about the DR Trip and the Apopka Clinic:

Visit: <http://med.ucf.edu/global-health/>



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