

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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Medical Students Providing Across Continents (MedPACT)



The Dominican Republic Clinic



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

First *international* service trip by MedPACT

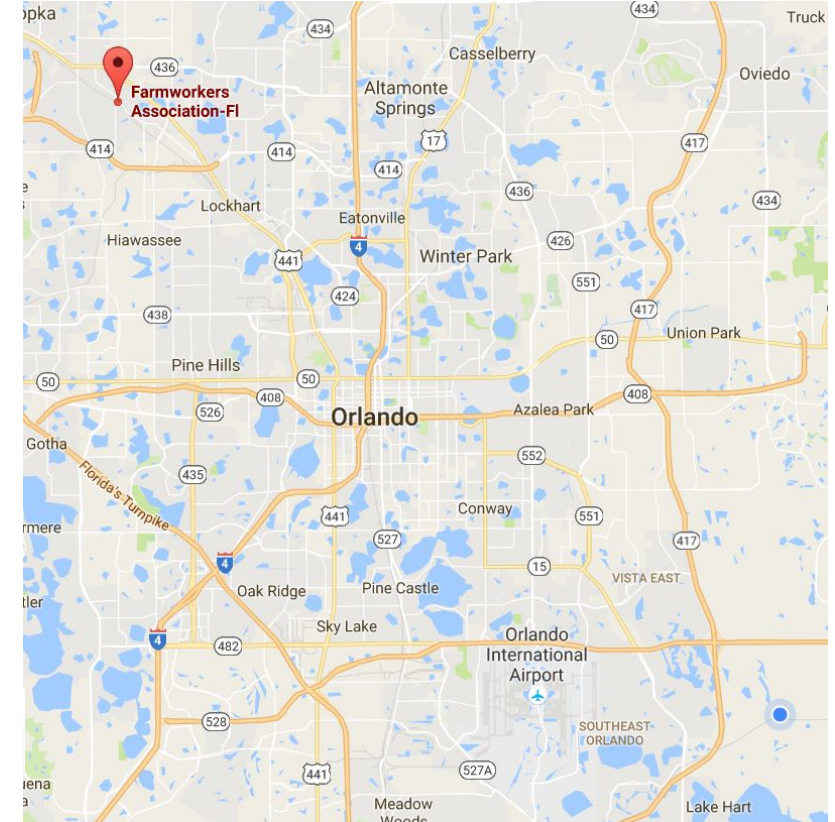
Multispecialty primary care held in local elementary schools

Partnership with 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** north Orlando Apopka community medical service
 - UCF College of Medicine student surveyed the Apopka farmworkers
 - UCF College of Nursing presence in the Apopka community



From Global to Local Service Learning

Need of LOCAL Medical Care

- Clinician to Patient Ratios in Apopka, Florida
 - **Primary Care: 1 to 82**
 - Dentists: 1 to 46
 - Mental Health 1 to 181
 - Other: 1 to 93
- Socioeconomic Status in Apopka (2011-2015)
 - Median household income (in 2015 dollars) = \$58,885
 - Per capita income in past 12 months (in 2015 dollars) = \$27,011
 - **Persons in poverty = 14.6%**
 - **Persons without health insurance, under age 65 years = 20.5%**

Source: Dartmouth Atlas, 2017 & UCF College of Nursing Needs Assessment, 2017

From Global to Local Service Learning

Need of LOCAL Medical Care

- Leading causes of death:
 - Heart disease, cancer, and stroke
- Social determinants of health:
 - Correlates with high number of fast food restaurants, low income and/or rural communities and low numbers of residents with college degrees
- The Apopka Clinic addresses these concerns through **education** and **prevention**.

Source: UCF College of Nursing Needs Assessment, 2017

The Apopka Community *Population Demographics*

- Apopka Total Population Race/Ethnicity
 - **Hispanic or Latino: 25.4%**
 - **Black or African American alone: 20.7%**
- South Apopka: more disadvantaged socioeconomically with higher percentage of Hispanic and Black residents
 - Significant number of undocumented workers
- Most could speak only **Spanish** or **Creole**
 - Translators are essential in almost all encounters



Source: College of Nursing Needs Assessment, 2017

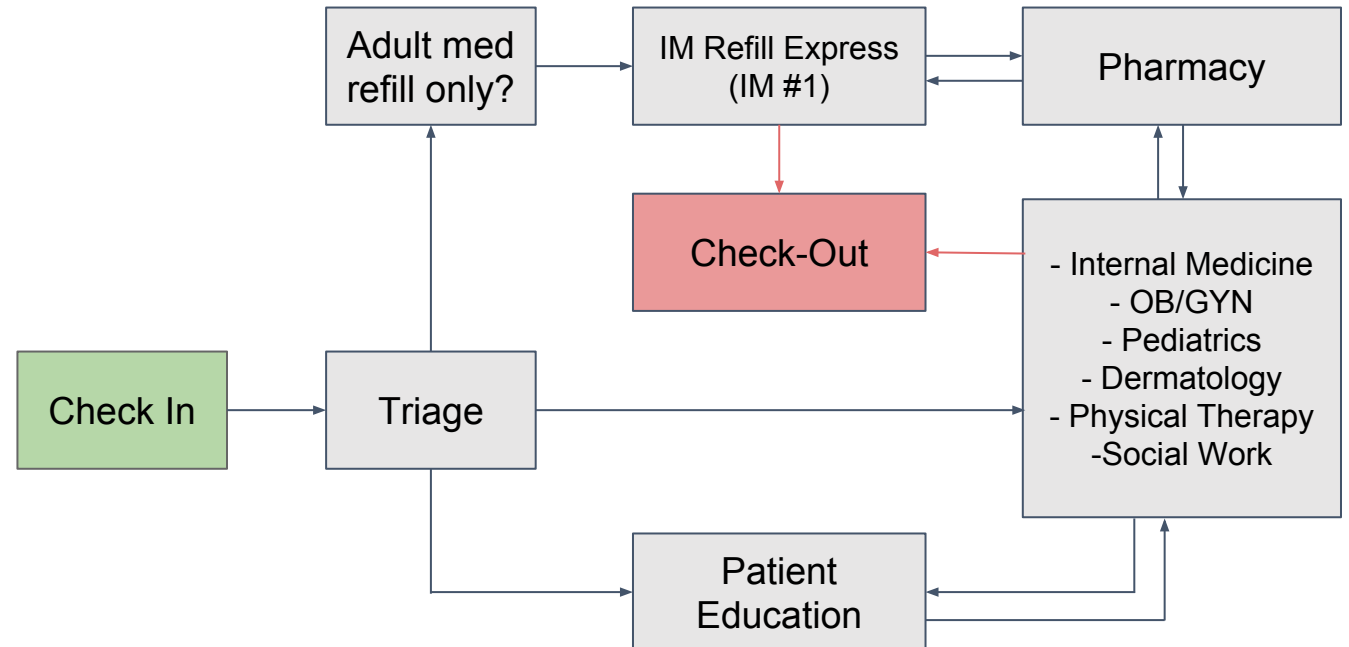
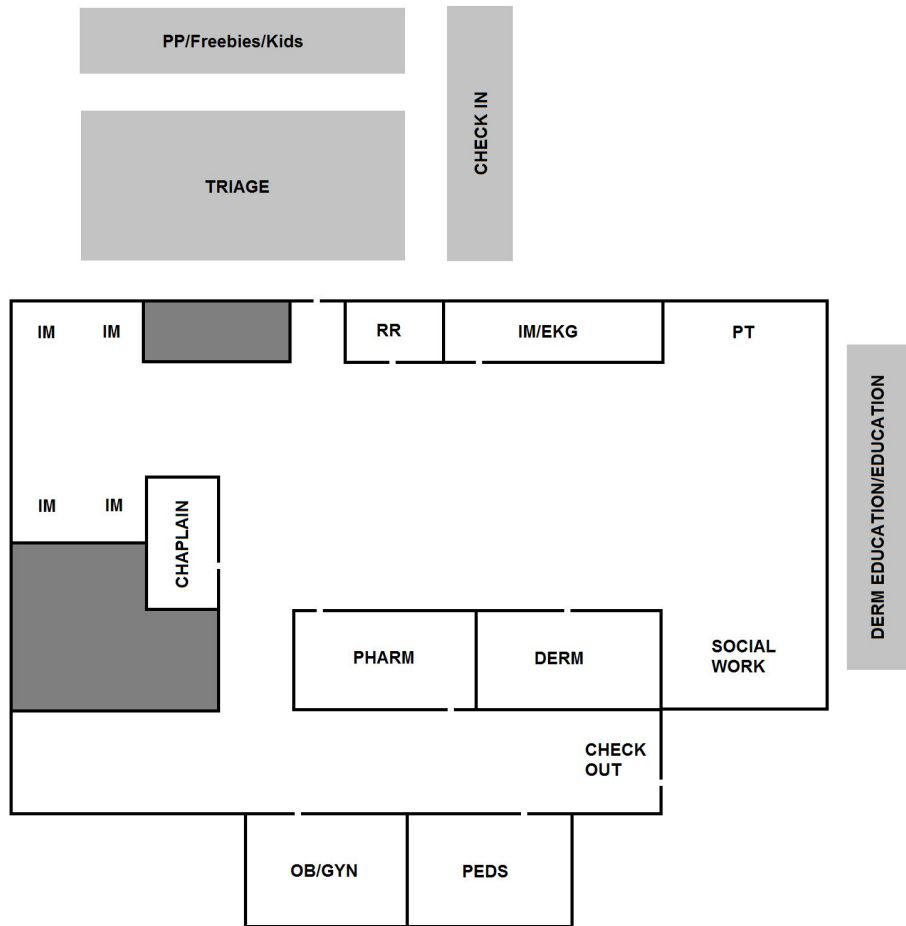
The Apopka Clinic

Overview

- **Interdisciplinary** care clinic that serves the *local* Apopka community
 - Interprofessional collaboration: Nursing, social work, pharmacy, physical therapy
 - Multispecialty medicine: Internal medicine, pediatrics, obstetrics/gynecology, dermatology, ophthalmology, optometry, etc.
- Location: Farmworker Association of Florida office
- Four Apopka clinics to date
 - July 2016, November 2016, March 2017, July 2017

The Apopka Clinic

Clinic Flow





Source: <https://med.ucf.edu/global-health/photos/2016-farmworkers-clinic-apopka-fl/>

The Apopka Clinic

Served over **377**
encounters to date

- Average of ~94
patients per clinic
- July 2016 - 18
- November 2016 - 45
- March 2016 - 66
- July 2017 - 74

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The Benefits - 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

The Apopka Clinic

The Benefits - Finances

- Apopka clinic is extremely **cost efficient** and effective.
 - Clinic cost lowered - from \$2733 (2015) to \$947 (July 2016)
 - Majority of cost spent medication
 - **Student cost** varies enormously
 - D.R. was approximately \$1000/student
 - Apopka is essentially **free for students**
- Allows for **three** local clinics per year rather than an annual trip
- Allows for approximately **100** rather than 40 student volunteers
 - Allowed implementation of **social work** and **physical therapy** students and faculty volunteers

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”

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

- Barriers to care
 - Fear and sociopolitical climate
 - Skepticism in healthcare
 - Transportation
 - Financial barriers
 - Language barriers
- As clinic organizers, it is important to build **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.

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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**

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Partnering with the Community

Community Partners

- Planned Parenthood of Central Florida
 - Grace Medical Home
 - Shepherd's Hope
 - Farmworker Association of Florida
 - Lion's 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

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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

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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

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Looking Forward

- Education goals
 - Enhancing clinical education (faculty-student interactions)
 - Involving students earlier
 - Improving Spanish through interactive patient sessions and Spanish Lunch Hour
 - Increased opportunities for research
- Clinic and patient care goals
 - Providing dental care
 - Bilingual nutritionist at future clinics



Thank you!

Questions?

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- UCF Physical Therapy
- UF College of Pharmacy
- UCF College of Medicine



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

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

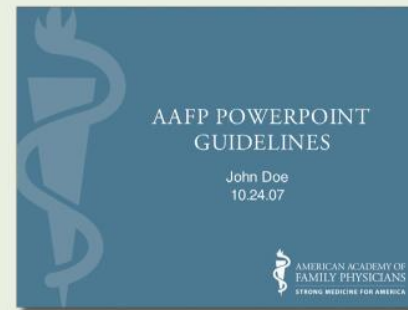
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