

An Inter-Professional Exploration of Cuba's Primary Healthcare System

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Outline



- Introduction
- Overview of the Cuban health system
- Social work and mental health in Cuba's primary care system
- Nursing in Cuba's health system
- Oral health in Cuba's primary care system
- Cuba's medical education system
- Value of the program to the participants

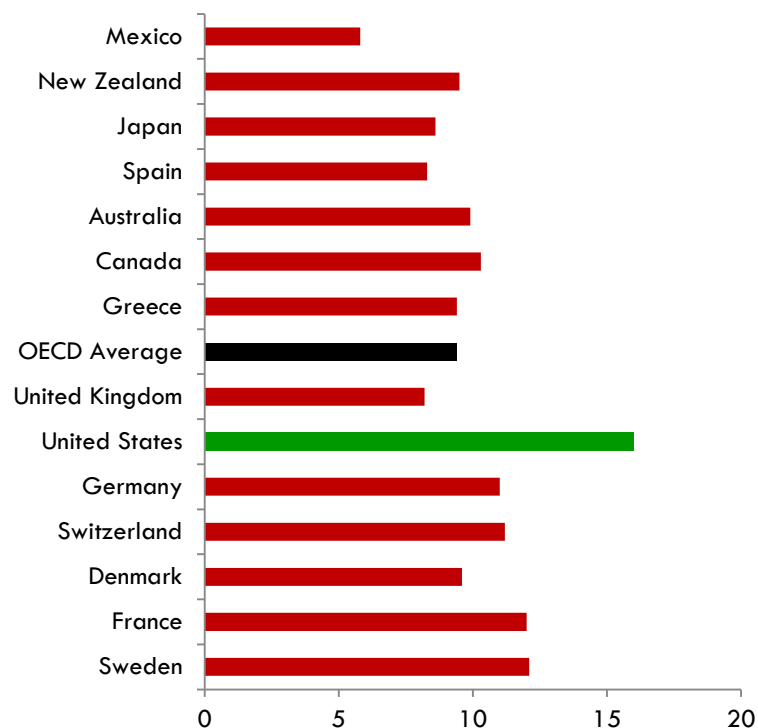
Why Explore the Cuban System?

- Healthcare reform in the U.S. is:
 - increasingly focused on a strong primary care base
 - increasingly focused on inter-professional collaboration
 - is front and center in Vermont
- Cuba has a well-regarded system of population health and primary care

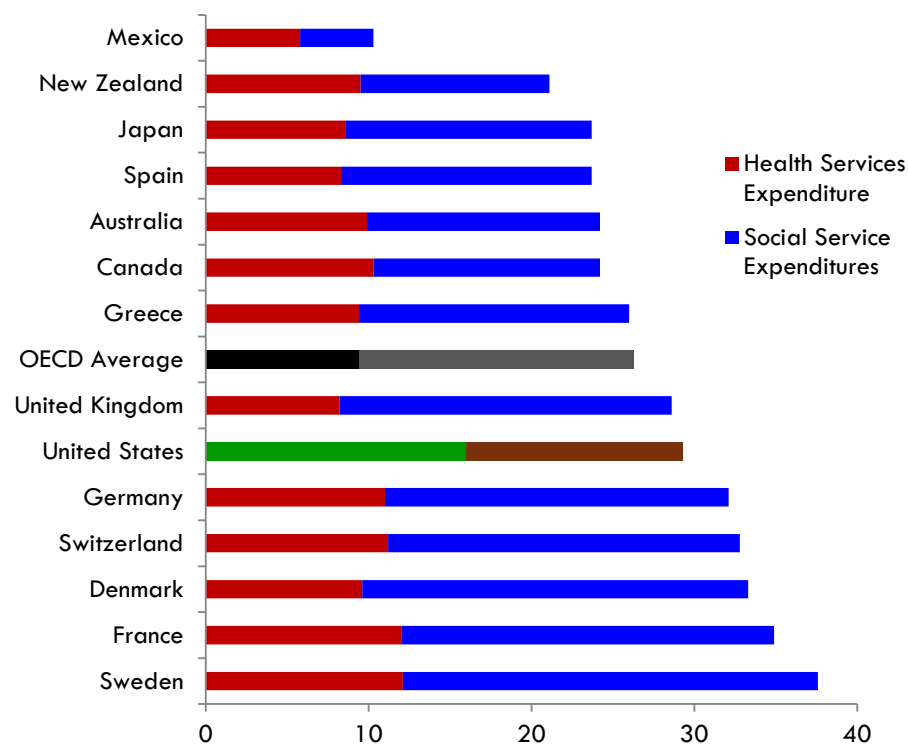
Participants will gain a better understanding of the Cuban health system, in particular the role of primary care and the interaction between primary care, public health, and the community

Health and Social Spending

Health expenditures (% of GDP)





Health and social (% of GDP)



Geography



Political History

- Spanish colonial period: 1492-
 - Loss of indigenous people & importation of slaves
- Independence from Spain: 1898, Jose Marti
- Batista: 1950s
 - Strong U.S. influence
- Communist revolution: 1959, Fidel Castro 
- USSR & Cold War politics: 1961-1990
 - U.S. embargo
- Special Period: collapse of USSR, 1991 
- Current:
 - Increase in tourism
 - Evolution of role of private ownership

Course Outline

- Health clinics
- Specialty rehab hospital
- Medical school
- Dental school
- Disaster preparedness center
- Cultural exploration
 - Old Havana & Capitol district
 - Hotel Nacional
 - Jose Marti Center
 - Hemingway House
 - Vinales, rural tobacco-growing region

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Principles of the Health System (adapted)

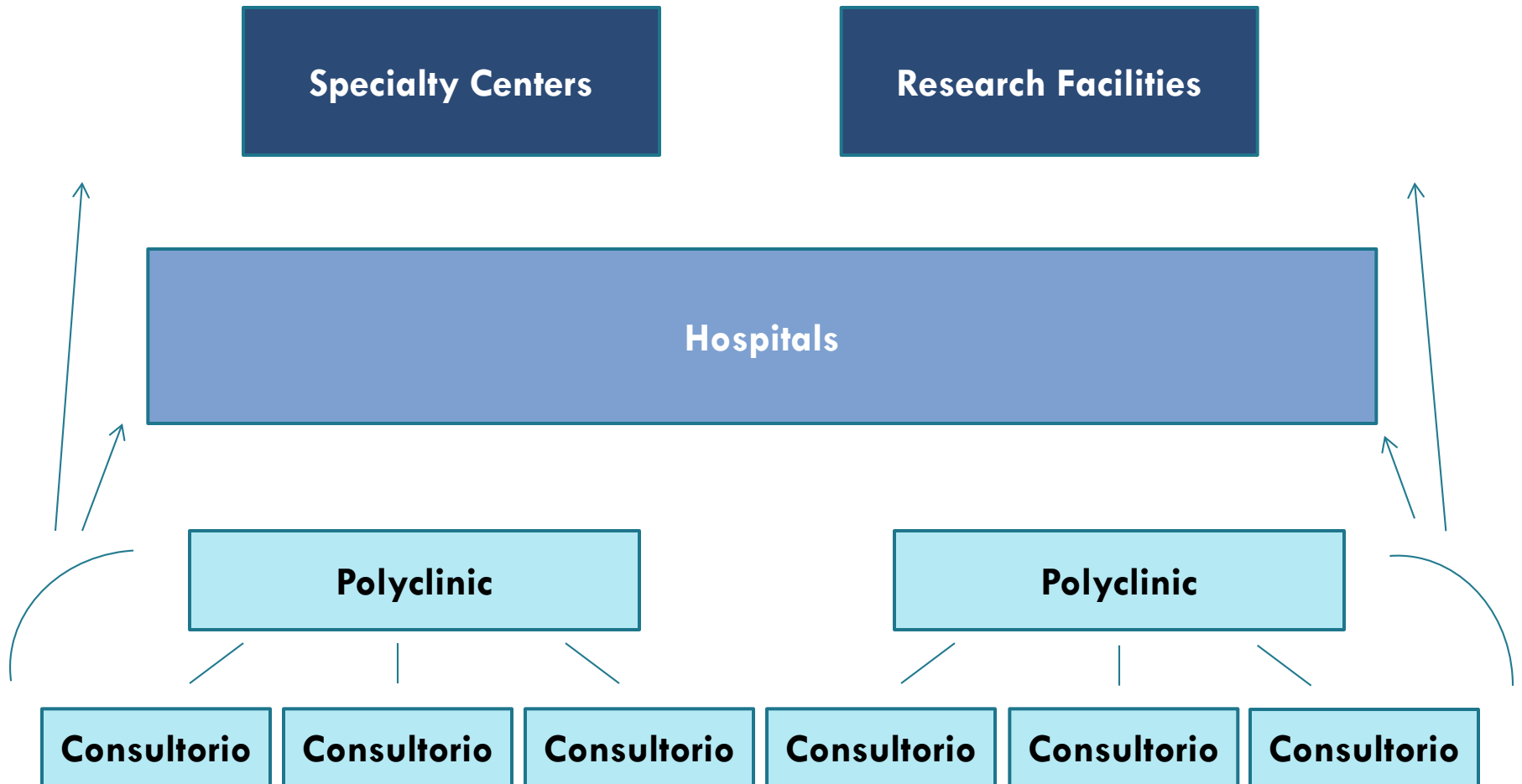


- Health care as a human right
- Accessible and free
- Primary care foundation
- Priority on health promotion and disease prevention
- Data-driven or evidence-based
- Emphasis on community participation
- Commitment to international collaboration

Organization of the Health System

- Tier 1
 - Consultorios
 - MD and nurse
 - Social services
 - Polyclinics
 - Specialists (Peds, ObGyn, Psych, Geriatrics, Dental)
 - Epidemiology & statistics
- Tier 2
 - Hospitals, long term care
- Tier 3
 - Specialty and research centers

Organization of the Health System



Consultorio



Health Accessibility

- Consultorios are typically within 1 km of their patient population (urban)
- The family physicians live in the communities they serve
- Patients seen by appointment or as drop-in
- Home care is routine
 - “admission at home” services available

Caracterización del área de salud

Ubicación:

El policlinico se encuentra situado en la calle Tulipán entre Panorama y Oeste, Nuevo Vedado en el Municipio Capitalino Plaza de la Revolución.

Población Total: 28 898

Familias: 9833

Extensión Territorial: 2,5

Densidad poblacional:

hab x Km²



El relieve predominante es ondulado.
La temperatura media anual es de 22.2°C
Las precipitaciones anuales son de 1411 mm³.

Primary Care Workforce (2010)

- Number of physicians (specialists and generalists) per 1,000 population
 - Cuba – 6.7
 - Russia – 4.3
 - United Kingdom – 2.7
 - United States – 2.4
 - Canada – 2.1

Cuba's Public Health Priority

- Family medicine physicians at the consultorio level are directly involved in researching and addressing the public health needs of their community and nation
 - Annual report regarding community demographics and health
- As a unique socialist system Cuba has a low level of health disparities

Annual Health Survey

- Each patient is categorized as:
 - Healthy
 - At risk (smokers, obese, STD risk, kids who drop out of school, etc.)
 - Sick
 - Disabled
- These categories are essential to the public health research the consultorios conduct regarding their catchment area

- Family history master file



■ Patient Chart



Public Health



- Accomplishments
 - High immunization rates
 - Low infant mortality
 - Management of endemic infectious disease
- Ongoing problems
 - Smoking
 - Alcohol abuse

Messaging re Cost of Care

**Tu servicio de salud es gratuito
... pero cuesta**

Atención Primaria de Salud



Consultas:	36,55 pesos
Consulta de Rehabilitación:	36,60 pesos
Examen de Laboratorio Clínico:	19,67 pesos
Consulta de Oftalmología:	46,15 pesos
Ultrasonido:	148,50 pesos
Rayos X:	99,39 pesos
Consulta de Genética Especializada:	34,95 pesos
Prueba Citológica Especializada:	23,95 pesos



por un Futuro más Sano



Oficina de Consultación de Salud

Policlinicos

Public Health Messaging

HIPERTENSIÓN ARTERIAL

PARA *Suprime o disminuye:*

Comidas con alto contenido de sal como lacón, queso, papitas crujientes (si tienen sal adicionada), pelly, pollo empanizado, salsas polvoreadas, salchichas, aceitunas, pepinillos, salami, mani salado, pescado salado, carnes y pescados ahumados, salsa de soya, salsas de mesa, carnes enlatadas, etc.

CON CUIDADO *Come menos porciones de comidas procesadas:*

Frijoles condimentados, galleticas, productos de pan, hamburguesas, cake, pasteles, salsas de cocinar y de mesa, salsas para pastas, pastas rellenas o de lata, pizza, pay de carne, sopas, sándwiches.

ADELANTE *COME MÁS COMIDA BAJAS EN SAL:*

Algunos cereales de desayuno, huevo, pescado fresco, carne y pollo, queso fresco y natural, frutas y vegetales (secas, frescas, congeladas) salsas y sopas hechas en casa, pastas, arroz, maníes no salados, palomitas de maíz natural, yogurt, frijoles, guisantes, lentejas y semillas.

Hipertensión: el enemigo silencioso

Puede afectar a niños y adultos. La Organización Mundial de la Salud la define como una enfermedad silenciosa.

Si tu presión arterial se encuentra por encima de 120 y 80 mmHg estás en riesgo de ser hipertenso, **ACUDE PRONTO A TU MÉDICO.**

Infórmate y vive más

Controla tu peso corporal y evita la obesidad

Practica ejercicios físicos y disminuye el sedentarismo

Elimina o disminuye la ingestión de alcohol

Reduce la ingestión de sal

Logra una adecuada educación nutricional

Elimina el tabaquismo

SÍNTOMAS

Hipertensión leve
Es asintomática pero hay signos vinculados a la enfermedad.

- Cefaleas
- Hemorragia o enrojecimiento nasal
- Vértigo
- Cansancio

Hipertensión severa
Cuando no se trata y hay un daño arterial, puede provocar:

- Fatiga
- Náuseas y vómitos
- Drona
- Visión borrosa
- Somnolencia

CONSECUENCIAS

- Accidentes cerebro vasculares
- Insuficiencia cardíaca, infarto
- Lesiones en el riñón

PRINCIPALES FACTORES DE RIESGO

Obesidad, Alto consumo de sal, Vida sedentaria, Situación estresante

LA PRESIÓN
Toda la población debería tomársela por lo menos una vez al año.

Referentes	Normal	Hipertensión Leve	Modesta	Severa									
mm	8	9	10	11	12	13	14	15	16	17	18	19	20
Mínima													
Máxima													

La presión arterial es normal si es menor de 120 y 80 mmHg, en personas a partir de 18 años.

Contrasting U.S. and Cuba

Cuba

Public Health

Secondary & Tertiary
Systems



Primary Care System
-Consultorio
-Polyclinic

Public Health

Health Care

Population Health

Education

United States

Health Department

- surveillance
- loosely tied to health delivery

Delivery System

- market-driven
- relatively uncoordinated
- profit & not-for-profit sectors

Financial System

- managing financial risk, not health
- complex: public, private, government, military

Educational system

- loosely coordinated with public health & delivery systems

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Roles of Social Workers

- Case management for psychiatric patients
- Help set up entitlements and services for those deemed psychologically disabled
- Cuban social workers practice not only in health care settings but also in schools, social services, community support groups and criminal justice settings (NASW, 2011)
- Outreach programs that focus on providing psychoeducation to community members about mental illness

Mental Health Care in Cuba

- Focus on prevention and the integration of health and social well-being
 - Consistent with social work practice and the biopsychosocial model
- High priority on the social determinants of health
 - Considers not only physical health but also examines issues of lifestyle, employment, family, environment, and nutrition
- Valued and respected aspect of health care

Community Mental Health Center Programming

- Alcoholism/drug addiction treatment
- Programs for domestic violence survivors
- Suicide prevention
- Smoking cessation
- Adolescent psychiatry
- Stress clinics
- Care for the elderly
- Community rehabilitation
- 'Day Hospitals': community-based outpatient psychiatric services operate out of the community mental centers (I.O.P)

Inpatient/Intensive Treatment Options

- 1151 psychiatric hospital wards in general hospitals
- 24 specialized mental hospitals
- 6505 total beds in mental hospitals
- Government runs three specialized intensive substance abuse clinics
 - Foreigners are eligible for these programs
- Catholic Church runs a center to treat addictions in Havana
- Emphasis on integrating the patient back into society as swiftly, effectively and sustainably as possible.
- Always includes scheduled follow-up, re-integration efforts and family involvement

(Mental Health Atlas 2011, WHO)

Alcoholism and Alcohol Abuse

- *“Alcohol consumption is our number one problem,”*
 - Dr. Alejandro García, director of the Community Mental Health Center in Central Havana
- A culture of acceptance towards drinking and the prevalence of rum in the country contribute to the prevalence of alcohol abuse
 - This can lead to:
 - Family violence
 - Accidents
 - Behavioral problems
 - Depression
 - Job loss and financial insecurity

Alcoholism and Alcohol Abuse

- 25% of those admitted to Cuban emergency rooms test positive for alcohol use (Gorry 2013)
- Alcohol is associated with one third of all crimes in Cuba and 20% of deaths from unintentional injuries (Diaz & Espinosa, 2013)
- 5% of Cuba's adult population >16 years fulfill WHO criteria for alcohol dependency
- An additional 10% meet criteria for hazardous or medically harmful use (Mills, 2013)

Substance Abuse

- There are very low estimates of illicit drug use
 - In a 2008 study, 0.4% of adults self-report using illegal substances at least once (Mills, 2013)
- Factors considered to be impacting this:
 - Extensive policing
 - Low incomes
 - Strict drug laws
 - National campaigns aimed at prevention
 - Counternarcotic action plans that encompass Ministries of Health, Justice, Education and Interior.
 - Strong efforts of the National Drug Commission
 - Trade embargo

Obstacles to Effective Treatment

- Despite these strengths, Cuban mental health providers still struggle with some of the roadblocks faced in the United States
 - Transportation
 - Lack of organized and consistent public transportation
 - Rural areas
 - Stigma
 - Mason et. al (2010) state that “the almost universal prejudice against people with mental illness is alive and well in Cuba” (p.198)
- The embargo limits access to various psychiatric medication and options for medicated-assisted substance and alcohol abuse treatment

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Nursing in Cuba's Health System



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Kristy Garbarino, RN, BSN, UVM Family Nurse Practitioner Student

Nursing in Cuba's Health System

Topics for Discussion:

- Nursing Education
- Nurses' Role in Cuban Health System
- Social Perception of Nurses in Cuba

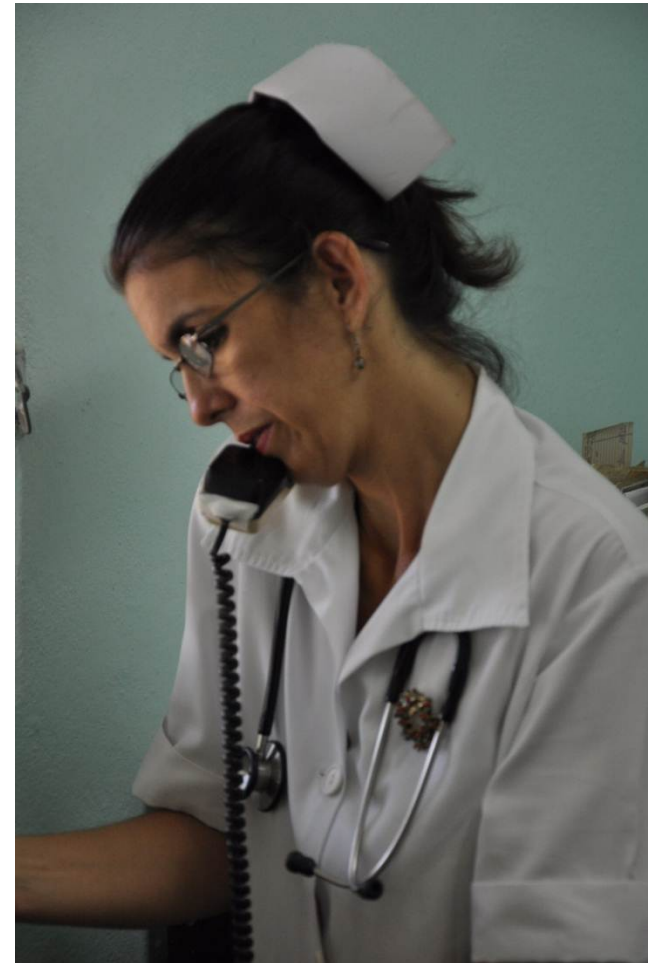


Nursing Education in Cuba

- First Nursing Program established in 1976
 - Modeled after nursing curriculum, Ontario, Canada
- Diploma Program:
 - Two-year degree
 - Can add one specialty study post: i.e.: Emergency Care, OB Care, Burn Care
- Bachelor's Degree in Nursing (BSN)
 - Prerequisites: High School Graduate
 - Track One
 - One-Year nursing technical program
 - Track Two
 - Direct entry from High School
 - Clinical Rotations
- Additional Degrees
 - MSN
 - PhD: Pedagogical Sciences, Communication

Nurses' Role in Cuban Health System

- Primary Care Setting (Consultorios)
 - Work Hours/Rotations
 - Home Visits
- Inpatient Setting
 - Work Hours/Rotations
- Strong RN/MD Relationship
- Disaster Preparedness
- Nurse Practitioners



Social Perception of Nurses in Cuba



- Financial Compensation
- Perception of Nurses in Community
- Women in Nursing
- Men in Nursing

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Oral Health in Cuba

- Dental care is free to all Cubans
- Dental clinics are part of polyclinics
- All non-emergency dental problems are given the same priority
- Dentists treat children at school-based clinics
 - Dental teams are assigned to school(s)
- Dentists typically see patients twice/year
 - Patients see a hygienist, then a dentist for final check-up
 - Follow-up visits scheduled as needed (e.g., restoration due to cavity)

Oral Health in Cuba

- Public water in Cuba is not fluoridated
 - Fluoride is added to salt; amount varies by region, based on data
 - “Fluoridated salt has enormous potential in controlling dental caries. It is cheaper than any other method of caries prevention applicable to millions”

Marthaler, Thomas. "Salt Fluoridation and Oral Health." *Acta Medica Academica* 42.2 (2013): 140-55. Web.

- A focus on prevention
 - However, basic supplies like dental floss, are hard to find
- Gum disease and gum-related problems are common
- Implants are expensive; partial dentures or dentures are the more typical treatment for tooth loss
- Cosmetic treatment (e.g., bleaching) is accessible because it is considered part of overall physical and psychological health

Oral Health in Cuba

- Anecdotally, many dental clinics offer alternative therapies, e.g.
 - Guava for bleeding
 - Mixture of guava, honey, and alcohol to treat pain, bleeding, and provide some sterilization
- Homeopathic treatment increases patient compliance and decreases treatment cost

Escuela de Odontología

Founded 1900



Escuela de Odontología

- ~300 students per class
- 5-year program
- 2 years of medicine, sciences, and community health
- 3 years of dental classes and clinical practice
- After first 2 years, students may apply to specialty programs or continue in stomatology
- Active research in oral cancer, surgery, and dental implants
- Two other dental schools in Havana, but without clinical chairs
- Dental hygiene is a 3-year program

Dental Clinic within a Polyclinic



Docente Dental Clinic



- 1 of 82 polyclinics in Havana
- 16 dental chairs
- 90-100 patients/day
- A typical dentist cares for ~300 families

Impressions

- Some published data are available about the Cuban medical system; not much available specific to the Cuban dental care system
 - Ripe for further study!
- Polyclinics are similar to U.S. federally qualified health centers (FQHCs); inclusive of primary care medicine, mental health, and dental care
- Community-focus and family-focus add to system effectiveness
- Public health outreach is focused on children (e.g., school-based clinics, sealants, fluoride varnish)

Impressions

- Patient confidentiality is not a concern like in the U.S. (e.g., HIPAA)
- Limited supplies and resources impact treatment plans
- Combined undergraduate and professional training is an efficient workforce development model
- An emphasis on “in the field” learning and mentoring
- *“We have a lot of dentists in Cuba”*
- “Mid-level” providers are not part of the Cuban system (medical and dental) due to an adequate workforce supply
- Health care professionals would like to be paid higher salaries
- Cuban health care professionals and the public are proud of their health care system

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Cuban Medical Education System

- Loss of physicians during revolutionary period required that the number of physicians increase, and education scale up to meet needs of population
- Need to recruit and train scientifically prepared and socially committed students
- Match competencies, knowledge base, and scope of responsibilities to the health care needs of the people in Cuba and other countries where physicians serve

Evolution of the Medical Education System

- Transfer of Medical, Dental, Nursing, Clinical Psychology, and Health Technology to the Ministry of Public Health but monitored by Ministry of Education
- Curriculum is based on health needs, delivery models and staffing needs of the Cuban population
- Decentralization of training by establishing medical schools throughout the country (25 schools)
- Outreach admissions process

Medical Education System

- Primary Care Physician-The 6 Star Doctor
 - * caregiver
 - * communicator
 - * decision-maker
 - * manager
 - * teacher
 - * researcher

Curricular Design

- integrated; problem-based 6-year program
- active learning and service learning
- epidemiological and public health
- introduction of clinical skills early
- Programa Medico y Enfermera de la Familia (MEF) established in 1984 (Family Medicine)
- requiring a pass on practical portion of exam before taking theoretical portion

Medical School Curriculum

University Polyclinic Medical Training Program (UPMTP), Cuba, 2008-2009 Academic Year*

YEAR ONE			
Semester 1	Morphophysiology I: Cellular & Tissue Level, Prenatal Development (10 weeks)	Morphophysiology II: Integumentary and Musculoskeletal Systems (8 weeks)	Morphophysiology III: Nervous System (1 week)
	Comprehensive General Medicine (Family Medicine) I (20 weeks)		
	Philosophy & Health I, Health Information Technology I, English I, Physical Education (17 weeks each)		
Semester 2	Morphophysiology III: Nervous System (11 weeks)	Morphophysiology IV: Metabolism, Endocrine and Reproductive Systems (10 weeks)	
	Family Medicine II (22 weeks)		
	Philosophy & Health II, English II, Physical Education II (22 weeks each)		
YEAR TWO			
Semester 1	Morphophysiology IV (continued), History (6 weeks each); Family Medicine III, English III, Physical Education III (16 weeks each)	Morphophysiology V, History of Cuba (10 weeks each)	Morphophysiology I (1 week)
Semester 2	Morphophysiology I (continued, 9 weeks)	Morphophysiology II (12 weeks)	
	Family Medicine IV, Psychology of Health Care I, Health Information Technology II, English IV, Physical Education IV (21 weeks each)		
YEAR THREE			
Semester 1	Introduction to Clinical Medicine and Medical Semiology, Clinical Laboratory, Imaging, Psychology of Health Care II, Pharmacology I, English V (20 weeks each)		
Semester 2	Internal Medicine, Pharmacology II, English VI (20 weeks each)		
YEAR FOUR			
Semester 1	Family Medicine V (6 weeks)	General Surgery (10 weeks)	Obstetrics & Gynecology (10 weeks)
	English VII (24 weeks)		
Semester 2	Pediatrics (16 weeks)	English VIII (13 weeks)	
YEAR FIVE			
Semester 1	Public Health (9 weeks)	Family Medicine VI (7 weeks)	Psychiatry (6 weeks)
	English IX (10 weeks)		
Semester 2	Traumatology & Orthopedics (6 weeks)	Urology, Otolaryngology, Ophthalmology, Dermatology, Tropical Medicine (3 weeks each)	English X (11 weeks)
	Forensic Medicine (12 weeks)		
YEAR SIX - INTERNSHIP ROTATIONS			
	Internal Medicine (12 weeks)	Pediatrics (12 weeks)	Obstetrics & Gynecology (8 weeks)
	Surgery (8 weeks)	Family Medicine (8 weeks)	

*Does not include elective or examination periods. Internship is followed by state licensing examination.

Upon Graduation

- Everyone completes a Programa Medico y Enfermera de la Familia (MEF) residency
- Expected to practice in the community where you live
- Option to specialize after 3 years of practice:
 - Specialty choice determined by community needs at the time of application (Ministry of Health)

Physician Compensation in Cuba

- Government provides
 - housing in community
 - food subsidies
- Salary:
 - Typically < \$100 USD per month
 - Slightly higher for specialists

ELAM – Escuela Latinoamericana de Medicina



ELAM – Escuela Latinoamericana de Medicina

- Established 1999
- Preference for admission:
 - Students from underserved backgrounds
 - Strong community service
- Commitment to return to practice in underserved populations
- 4,500 graduates from >50 countries, 1999-2007
- Accredited by the Medical Board of California
 - U.S. citizens may apply to medical residency programs in the U.S.

ELAM

- Free tuition, housing, meals, textbooks, uniforms & and a monthly stipend of 100 Cuban pesos (\$3.80 USD)
- All courses are taught in Spanish
 - Intensive 6 months Spanish course for those who are not already proficient
- 6 year, semester-based program
 - 2 years of basic science
 - 3 years of “clinical sciences”
 - 1 year of a rotating internship

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Next Steps



- Exploration of future courses, clinical rotations, exchange programs

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- Students from ELAM

Questions and Discussion

- Contact information
 - UVM Office of Primary Care:
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