

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Vieques, Puerto Rico

A HEALTH CARE SERVICES NEEDS ASSESSMENT

FOR THE
PRESIDENT'S TASK FORCE ON PUERTO RICO'S STATUS

DHHS REGION II VIEQUES WORKGROUP

February 2013

CO-CHAIRS

- Jaime Torres, DPM, Regional Director, DHHS Region II
- Nilsa Gutierrez, MD, MPH, Chief Medical Officer, CMS Region II

CENTERS FOR MEDICARE & MEDICAID SERVICES

- Peter Reisman, Associate Regional Administrator, Medicare Financial Management and Fee-for-Service Operations
- Iris Bermudez, Director, CMS PR-VI Field Office
- Carmen Enid Maldonado, Health Insurance Specialist, CMS PR-VI Field Office
- Thomas Bane, Presidential Management Fellow
- Melissa Abecasis, Health Insurance Specialist

HEALTH RESOURCES AND SERVICES ADMINISTRATION

- Claritsa Malave, MD, MPH, Senior Medical Advisor, HRSA ORO, Region II, PR
- Tanya Raggio-Pagan Ashley, MD, MPH, Senior Medical Officer, HRSA ORO

PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

EXECUTIVE SUMMARY	<u>4</u>
INTRODUCTION.....	<u>14</u>
PRESIDENT’S TASK FORCE RECOMMENDATION: VIEQUES HEALTH CARE SERVICES NEEDS ASSESSMENT	<u>16</u>
ISLAND OF VIEQUES: UNIQUE CIRCUMSTANCES AND CHALLENGES	<u>18</u>
PUERTO RICO’S HEALTH CARE SYSTEM.....	<u>25</u>
VIEQUES HEALTH STATUS AND HEALTH CARE SERVICES	<u>31</u>
PUBLIC HEALTH RESPONSE TO ENVIRONMENTAL EXPOSURE TO TOXIC SUBSTANCES AND BIOMONITORING RESEARCH	<u>48</u>
PRESIDENT’S TASK FORCE RECOMMENDATION: FEASIBILITY OF A SECTION 330 HEALTH CENTER PROGRAM IN VIEQUES	<u>53</u>
Health Center Program Scope of Services Criteria.....	<u>57</u>
Health Center Program Facility Designation Criteria.....	<u>58</u>
PRESIDENT’S TASK FORCE RECOMMENDATION: FEASIBILITY OF A CRITICAL ACCESS HOSPITAL ON VIEQUES	<u>59</u>
CRITICAL ACCESS HOSPITAL SCOPE OF SERVICE COMPARISON WITH CSFSC	<u>62</u>
CAH Facility Designation Criteria.....	<u>62</u>
CAH Scope of Services Criteria.....	<u>63</u>
RECOMMENDATIONS TO ADDRESS GAPS IN HEALTH CARE SERVICES	<u>64</u>
FEDERAL FUNDING OPPORTUNITIES AND RESOURCES.....	<u>71</u>
APPENDICES	<u>79</u>

VIEQUES, PUERTO RICO: A HEALTH CARE SERVICES NEEDS ASSESSMENT

EXECUTIVE SUMMARY

2011 PUERTO RICO POPULATION STATS

Population: 4 million
Percent of Territory Pop: 90%

Population is greater than 26
states and Washington DC

14% of population is aged 65 and
older, greater than 27 states and
Washington DC

Municipalities with rural
designation: 10, includes Vieques

Puerto Rico has 1.5 million
Medicare and Medicaid
beneficiaries

Total Medicare beneficiaries is
670,555, greater than 25 states and
Washington DC

Total Medicaid beneficiaries is
898,333, greater than 29 states

Dually Eligible (Medicaid and
Medicare) population is 182,009,
29% of the Medicare population

68.2% are enrolled in Medicare
Advantage compared to 25.6%
nationally

VIEQUES POPULATION STATS

2010 Census: 9,301

Median household income: 14,910

About 65 % live below the Federal
Poverty Level (FPL)

FPL family of four: \$22,050

Puerto Rico Commonwealth

Poverty Level family of four:

\$8,220

Approximately 61% have health
insurance

Since the establishment of the *President's Task Force on Puerto Rico's Status* (PTF) in 2000, its central focus has been the political status question. President Barack Obama broadened its responsibilities by Executive Order 13517 to include recommendations on policies that promote job creation, education, health care, clean energy, and economic development in Puerto Rico. The PTF, comprised of members of every Cabinet department, began its work in December of 2009 and during the following year sought public comment through public hearings and meetings.

The "*President's Task Force on Puerto Rico's Status Report*" was issued in March 2011 and presented its recommendations to the President and Congress on the status question as well as: (1) economic development, which includes recommendations on health care financing and services; (2) building competitive industries; and (3) the island of Vieques.

In addition to the PTF, a *Vieques Sustainability Task Force* (VSTF) was established by the Environmental Protection Agency (EPA) specifically to coordinate Federal and local efforts for comprehensive cleanup and remediation at the closed military bombing range and to develop and implement policies that boost sustainable growth and job creation in Vieques. The VSTF is composed of senior officials from the EPA, Navy, Department of the Interior (DOI), Department of Energy (DOE), Small Business Administration (SBA), Health and Human Services (HHS), the Puerto Rico Resident Commissioner, the Governor of Puerto Rico, the mayor of Vieques, as well as stakeholders and residents of Vieques. Dr. Jaime Torres, DHHS Regional Director for Region II (New York, New Jersey, Puerto Rico, and the US Virgin Islands) is the HHS representative to the VSTF.

The PTF recommendations specifically requested that the Department of Health and Human Services (DHHS) conduct a *Vieques health care services needs assessment* as well as identify options to address the needs of the residents of Vieques. In April 2011, HHS Regional Director Dr. Jaime Torres convened the *DHHS Region II Vieques Workgroup* (the Workgroup) comprised of Region II senior clinical and program staff from the Centers for Medicare & Medicaid Services (CMS) and the Health Resources and Services Administration (HRSA), the federal agencies responsible for the financing and delivery of health care services.

CMS ensures health care coverage for 100 million Americans. It administers Medicare and provides funds and guidance to all states

and territories for their Medicaid and Children's Health Insurance Program. With the passage of the Affordable Care Act in March 2010, CMS is responsible for implementing insurance reforms and Health Insurance Marketplaces included in the health care law.

The Health Resources and Services Administration (HRSA), is the primary Federal agency for improving access to health care services for people who are uninsured, isolated or medically vulnerable. HRSA grantees provide health care to uninsured people, people living with HIV/AIDS, and pregnant women, mothers and children. They train health professionals and improve systems of care in rural communities.

THE PRESIDENT'S TASK FORCE ON PUERTO RICO'S STATUS RECOMMENDED THE FOLLOWING:

HHS should work with the government of Puerto Rico and the municipality of Vieques to conduct a needs assessment to identify the most effective and efficient way to ensure that the people of Vieques receive the care, including expertise in environmental medicine, that they need and develop options for best addressing those needs.

HHS assists Vieques and the Puerto Rico Department of Health (PRDOH) in exploring two programs that could improve health care in Vieques:

- 1. HHS and Puerto Rico should explore the feasibility of a section 330 health center application and if a viable option, for the PRDOH to support this effort and work with the Vieques community to develop a strong application. It also recommends that HHS explore funding for health centers under the Health Center Program established by section 330 of the Public Health Service Act, specifically opportunities made available by the Affordable Care Act.*
- 2. HHS should continue to work with the PRDOH to explore Critical Access Hospital (CAH) designation and determine if the Centro de Salud de Familia facility in Vieques meets the statutory requirements for CAH designation.*

The DHHS Region II Vieques Workgroup began the task of collecting information and data necessary to responsibly lay the foundation for a comprehensive health care service needs assessment and set out to accomplish the following:

- I. *Identify the unique circumstances and challenges of the Island of Vieques*
- II. *Identify current health care services and gaps*
- III. *Propose tangible options for health care service development that specifically address known gaps with short and long term achievable goals*

Between April 2011 and April 2012, the Workgroup met with the Puerto Rico Department of Health and other Commonwealth government officials, to discuss the organization of health and human services; current demographic data; vital statistics; and utilization and availability of health care services -- both on and off the island of Vieques. In addition, the team met with public health leaders, clinicians, and researchers from the University of Puerto Rico and its School of Public Health, the Puerto Rico College of Physicians & Surgeons to obtain first-hand knowledge of their research questions and investigational activities.¹

In September 2011, several members of the Workgroup had the opportunity to visit the island of Vieques and meet with the Mayor, the Honorable Evelyn Delorme-Camacho; senior administrators and medical director of the Centro de Salud Familiar Susana Centeno (CSFSC); a broad range of community-based private health care providers; residents of Vieques seeking care at the CSFSC; and advocates of the *Servicios de Salud Integral de Vieques*². While there, we had the opportunity to view the CSFSC physical plant, equipment, supplies and resources. We also experienced the challenges of ferry transportation to-and-from Vieques.

Insurance coverage is not the principal barrier to care for Viequenses. Instead, the fundamental challenge is absence of a cohesive long-term public health policy that addresses the elimination of all barriers to comprehensive primary care and treatment and the environmental factors in disease.

Like all citizens, Viequenses deserve the opportunity to live healthy lives with access to comprehensive primary care services, including preventive services and early diagnosis and treatment. The biggest gains for improved health outcomes for Viequenses is in the full implementation of a *comprehensive primary care system* that makes comprehensive primary care services its foundation. Necessary components include the unencumbered access to specialty care by bringing services to the island; the integration of epidemiologic tools to track disease trends and the association of the environment with disease; and the financial, institutional, and public health support for community based primary and secondary prevention efforts for all age groups. Plans for improving health outcomes in Vieques should be viewed through an epidemiologic and population-based lens which will allow health care agencies to identify disease trends and mount an adequate response.

It would be prudent for policymakers to adopt a “health in all policies” approach for Vieques. Health should be included in all policy decisions, such as those related to transportation, economic development, education, and housing. There are many intersections, as in the role of transportation in improving access to care; the role of agriculture in increasing access to fresh fruits and vegetables by conducting soil testing and educating the public on best farming products and methods; and the power of engaging adolescents in social transformation of their community while providing leadership development, education, and access to reproductive and sexual health services.

¹ See Appendix B for a list of resources

² See Appendix A for the Vieques Site Visit Itinerary

The social determinants of health are the context for the needs assessment and recommendations. They include the circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illness and that these circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics.³ Due to its unique historic experiences as an island that sustained military bombing exercises for 60 years, Vieques residents are keenly aware of the link between their health and the environment as well as the impact of military operations on its ecology and by extension, its economy.

The Workgroup sensed the frustration and isolation of a community in search of equity in resources to build a healthy and environmentally safe community, and was impressed by the people's resolve to accomplish this goal. A better understanding of this relationship is crucial to ensuring good health for the current population and future generations.

The following recommendations intend to establish the necessary components of a comprehensive preventive and primary care system that guarantees timely access to primary and specialty care and treatment and fosters holistic, coordinated care for the residents of Vieques.

RECOMMENDATION #1:

Develop comprehensive, preventive primary care for all Viequenses.

To the extent possible, comprehensive primary care activities in Vieques should be aligned with the principles of the medical home/health home model.^{4,5,6} Achieving the model should be the goal of both private practices and the Centro de Salud Familiar Susana Centeno (CSFSC). The most feasible way to achieve this goal is the establishment of a Health Center Program⁷ site location within the CSFSC, (also referred to as a 330 health center by the President's Task Force). These models support and benefit from the co-location of other Puerto Rico Department of Health (PRDOH) categorical program services.

The Puerto Rico Department of Health (PRDOH) should lead the effort to bring specialty care to the island of Vieques. Barriers to specialty care are well documented in this report and are known to be associated with poor health outcomes and increased morbidity and mortality. The cost of such a service must be weighed against the cost of care for preventable complications of common chronic conditions, including cancer, heart disease, stroke, diabetes mellitus, and respiratory system disorders. It will require an organizational and reimbursement mechanism that supports on-Vieques island specialty medical care, including environmental medicine consultative services *across all insurers*. Financial incentives should compensate for the cost of travel to-and-from Vieques and offset the practice income lost to travel time. In addition, a physical location must be identified and supported to accommodate medical specialists on a routine basis and make available appropriate equipment and supplies for diagnosis and treatment.

The Workgroup strongly recommends that the PRDOH and Government Health Insurance Administration (Spanish acronym ASES) consider alternatives for compensating specialists who travel to

³ World Health Organization, Social Determinants of Health Key Concepts http://www.who.int/social_determinants/thecommission/finalreport/key_concepts/en/index.html

⁴ American Academy of Pediatrics.National Center for Medical Homes. <http://www.medicalhomeinfo.org/>

⁵ American College of Physicians Medical Home Model. http://www.acponline.org/running_practice/pcmh/

⁶ Strickland, B. et al. The Medical Home: Health Care Access and Impact for Children and Youth in the United States. *Pediatrics* 2011;127;604; <http://pediatrics.aappublications.org/content/127/4/604.full.pdf>

⁷ Health Center Program Grantee (HCPG) is sometimes referred to as a Federally Qualified Health Center.

Vieques to provide services to *MiSalud* and Medicaid patients. For example, ASES might contract with specialists to make a specific number of trips each year and pay a stipend covering travel expenses and income lost due to travel time. For specialists who encounter less than a full patient load for their specialty because of the island's small population, ASES might establish a minimum total fee per day. Another approach might be to set higher rates for specialty services provided on Vieques and establish a process for physicians to submit travel vouchers.

RECOMMENDATION #2:

Increase clinical management capacity for all age groups by establishing a telemedicine program⁸ available to all Vieques physicians and health care professionals.

Telemedicine is a powerful tool to support co-management of complex medical and behavioral health conditions in all age groups. Primary care physicians on Vieques can benefit from case presentations and consultative services offered by an existing or newly established telemedicine program of an academic medical institution. Selection of an existing telemedicine program should take into consideration the availability of an environmental medicine consultative team at the same institution. Clinicians providing care to residents of Vieques should have the necessary skills and tools to recognize and diagnose conditions and diseases that may be related to exposure to environmental toxins and noise. In addition, periodic in-person consultative services should be arranged. The Veterans Administration Rural Health Clinic, co-located in the Centro de Salud Familiar Susana Centeno, has telehealth capability. It would be beneficial to seek advice on their telehealth arrangement.

RECOMMENDATION #3:

The PRDOH should consider improved transportation to- and- from Vieques to be among the options for improving access to health care for the island's residents.

Health care services are available on-island but travel to-and-from the main island is required for certain essential services. Either way, the current transportation alternatives present a significant barrier. Service on the ferry is inexpensive but unreliable and requires an inordinate investment of time for routine medical visits. Air travel is expensive and entails additional ground travel at both ends of the trip. In evaluating its options for making specialty services more available to Vieques residents, the government of Puerto Rico should consider whether investment in a faster, more reliable passenger-only ferry between Vieques and Fajardo might be more cost effective than bringing some specialty services to Vieques. If such a transportation option is under consideration for other reasons, it would provide additional support to the plan.

RECOMMENDATION #4:

The PRDOH should establish a collaborative of key stakeholders to assess currently available data sources to determine priority health conditions among the Vieques population based on excess rates of disease, illness, and /or risk factors compared to the population of the main island. The collaborative should: (a) identify health conditions that require active surveillance; (b) develop a mechanism to identify community concerns about unique illnesses experienced by Viequenses and case definitions for purposes of data collection; (c) review the PRDOH Biomonitoring Study and associated workgroup recommendations to determine which should be actively pursued; and (d)

⁸ IOM The Role of Telehealth in an Evolving Health Care Environment Workshop Summary, November 12, 2012
<http://www.iom.edu/Reports/2012/The-Role-of-Telehealth-in-an-Evolving-Health-Care-Environment.aspx>

establish the framework for additional epidemiologic investigational activities consistent with community based participatory research principles.

The PRDOH is uniquely positioned to convene key stakeholders and launch a collaborative to assess readily available data sources illustrating excess rates of certain medical conditions, including leading causes of death, high infant mortality and low birth weight. Potential collaborative partners include the Cancer Registry, ASES, the PRDOH Primary Care Office, Centro de Salud Familiar Susana Centeno, the medical community actively engaged in the care of Viequenses; community health care advocates; and the University of Puerto Rico Graduate School of Public Health. Potential data sources include, but are not limited to, vital statistics, Cancer Registry, *MiSalud* claims data, and the Behavioral Risk Factor Surveillance System. The Collaborative may then be better positioned to identify and pursue new areas of epidemiologic research and provide recommendations for how to quickly respond to urgent and emerging health risks to Viequenses by developing appropriate and timely prevention, treatment, care, and support service strategies.

The PRDOH should also consider developing a mechanism for responding to local concerns about conditions or illnesses that may be unique to the Vieques population. The mechanism would capture unique illnesses, develop case definitions, registration of individuals that meet the case definition, and review of the case-series by appropriate medical specialists. In addition, the broad and substantive recommendations that followed the PRDOH Vieques Biomonitoring Study in 2006 should be revisited and pursued⁹. Community based participatory research principles should be integrated into all investigational activities.¹⁰

RECOMMENDATION #5:

Develop and fund a comprehensive community based health promotion and disease prevention outreach and education for all age groups.

The PRDOH should utilize the Centers for Disease Control and Prevention (CDC) and other agencies as a resource for the training, consultation, capacity building, and technical assistance as it relates to evidence and practice-based community and clinical prevention and wellness strategies, to include a broad cadre of community outreach, education, and patient-navigator workers whose activities center on health promotion and disease prevention across all age groups. Community health workers serve as a bridge between the community and health care services, are cost-effective and have been shown to improve health knowledge in individuals. Their role is critical in bringing health information to people in the community. Education and outreach should include health and resource information on behaviors such as obesity, smoking, and substance use, which are known to lead to common chronic conditions, and behaviors that contribute to the high rate of teenage pregnancy. Secondary prevention should include education on self-management of common chronic diseases. Although these campaigns are often lead by volunteers, this activity should be funded to guarantee consistency and accuracy of educational and resource information.

⁹ See p.49

¹⁰ Community-based participatory research (CBPR) is an applied collaborative approach that enables community residents to more actively participate in the full spectrum of research (from conception – design – conduct – analysis – interpretation – conclusions – communication of results) with a goal of influencing change in community health, systems, programs or policies. Community members and researchers partner to combine knowledge and action for social change to improve community health and often reduce health disparities. Academic/research and community partners join to develop models and approaches to building communication, trust and capacity, with the final goal of increasing community participation in the research process. It is an orientation to research which equitably involves all partners in the research process and recognizes the unique strengths that each brings.

http://obssr.od.nih.gov/scientific_areas/methodology/community_based_participatory_research/index.aspx

RECOMMENDATION #6:

Improve Women's Health Services and coordinate efforts to guarantee availability of comprehensive family planning services to adolescents and adults of reproductive age, and actively address the reduction of teenage pregnancy in Vieques.

Women's health services are an integral part of comprehensive primary care and merits special attention. In 2009, 26.4% of births occurred among adolescents in Vieques, compared to 18% on the main island. During 2009, women of Vieques had a Low Birth Weight (LBW) rate that was 21% higher than the women on the main island and infant mortality (IM or deaths) is almost twice as high in Vieques as on the main island. The PRDOH should further develop effective reproductive and safe sex educational services to address and prevent the high rates of pregnancy, low birth weight and other adverse pregnancy outcomes and work in collaboration with the University of Puerto Rico, to arrange for the dispensing of contraceptives and barrier methods on Vieques.

RECOMMENDATION #7:

Pursue Health Professional Shortage Area designations for primary medical care, dental and mental health, and National Health Service Corps site approval.

The Workgroup learned that the Vieques Health Professional Shortage Area (HPSA) designation status expired in 2005. The Workgroup requested technical assistance from HRSA's Bureau of Clinician Recruitment and Services Office of Shortage Designation (BCRS/OD)) for the Puerto Rico Primary Care Office (PRPCO). As a result, Vieques received its *Primary Care HPSA* designation in February 2012. As part of this effort, the PRPCO also requested designations for mental health and dental health service HPSAs and received these *HPSA designations* as of March and May 2012 respectively. Having the HPSA designation(s) allows the CSFSC to apply to become a *National Health Service Corps* (NHSC)¹¹ *approved site*. NHSC site approval will aid in the recruitment and retention of NHSC providers based on HPSA designation type. For example, upon completion of their education and training, NHSC scholars (physicians, dentists) can pursue employment and placement at CSFSC to fulfill their service requirements. NHSC Student to Service program physicians can also pursue employment at CSFSC. Once employed by CSFSC, the following disciplines may apply for NHSC loan repayment on a competitive basis: physicians, dentists, registered dental hygienists, health service psychologists, licensed clinical social workers, psychiatric nurse specialists, marriage and family therapists, and licensed professional counselors. In addition, HPSA designations permit all Vieques physicians to receive a Medicare bonus payment.

RECOMMENDATION #8:

Priority scheduling for health and human services currently available to residents of Vieques and Culebra under Law No. 194 of 2000 should be monitored for compliance; and a medical-related lodging and travel voucher system should be established.

The Municipality of Vieques, Patient Advocate, and relevant agencies should collaborate to guarantee the enforcement of Law No. 194 of August 25, 2000 which gives medical and social service appointment scheduling priority to residents of Vieques and Culebra, so as to ensure same-day return to both islands.

¹¹National Health Service Corps <http://nhsc.hrsa.gov/>

In addition, lodging vouchers for temporary accommodations should be made available to patients and family members of Vieques and Culebra, when health care services, such as emergency care, specialty care, and intensive treatment protocols are necessary and prevent same day return to both islands. This can be coordinated by the Department of Housing and the Department of Family Services, as proposed by the Puerto Rico Senate.¹²

RECOMMENDATION #9:

The PRDOH should require its External Quality Review Organization (EQRO) to conduct an External Quality Review (EQR) of Medicaid services and quality of care specific to the population of Vieques, comparing the results with the remaining population of Puerto Rico. The PRDOH should focus on priority health conditions identified through mechanisms outlined in Recommendation #4 and consider both mandatory and optional EQR activities¹³. Low quality of care indicators related to priority health conditions in Vieques should be targeted, and for rapid improvement, evidence-based interventions pursued for the prevention and control of disease and effective treatment.

Since 2003, CMS regulations require states that contract with Medicaid managed care organizations (MCO) ensure that a qualified External Review Organization (EQRO) conducts an annual *External Quality Review* (EQR) of each managed care entity. The External Quality Review Organization may conduct focused medical record reviews (reviews targeted at a particular clinical condition) or broader analysis on quality. While most EQRO contractors rely on medical records as the primary source of information, they may also use eligibility data and claims/encounter data to conduct specific analyses.¹⁴ States are to make final reports available to CMS and the public by April of each year.¹⁵

In Puerto Rico, Medicaid eligible residents are enrolled in the Government Health Insurance Program currently known as *MiSalud*, which is comprised of two managed care entities for comprehensive health services and one managed behavioral health organization for behavioral health services (while also functioning as a Prepaid Inpatient Health Plan (PIHP)). In 2011, forty-seven percent of the insured population in Vieques was enrolled in *MiSalud*.¹⁶

The PRDOH should work with its External Quality Review Organization (EQRO) to compare the quality of care of *MiSalud* enrollees in Vieques to that of *MiSalud* enrollees on the main island.

- *Mandatory EQRO activities are defined in 42 C.F.R. 438.358 and include:* Validation of Performance Improvement Projects (PIPs); Validation of Performance Measures; Review,

¹² Propuesta del Senado de Puerto Rico. P. del S. 1774. 24 de Septiembre de 2010. Ley. Para crear la “Ley de Alojamiento Temporero para los Residentes de Vieques y Culebra” con el propósito de implantar un programa de hospedaje temporero a ser coordinado por el Departamento de la Vivienda y el Departamento de la Familia para ofrecer este servicio a los residentes de las islas municipio Vieques y Culebra que deban trasladarse a la Isla Grande para recibir servicios de salud o cuidar de un familiar enfermo; ordenar al Departamento de la Vivienda identificar y habilitar las estructuras a ser habilitadas para estos fines; ordenar al Departamento de la Familia coordinar los esfuerzos necesarios para hacer disponible este servicio; entre otros fines.

English Translation

A proposal from the Puerto Rico Senate. P. del S. 1774. 24 September 2010. Law. In order to create a “Law of Temporary Accommodation (Lodging) for the residents of Vieques and Culebra” with the purpose of implementing a program of temporary accommodations (lodging) coordinated by “Departamento de la Vivienda y el Departamento de la Familia” (Department of Housing and Family (DHF) to offer this service to the residents of these municipal islands of Vieques and Culebra who need transportation to the main island to receive health services or to care for a sick family member; Order the Departamento de la Vivienda y Familia to identify and allow for arrangements to be made for this purpose; Order the Departamento de la Familia to coordinate the resources needed to make this service more readily available.

¹³ <http://www.medicaid.gov/Federal-Policy-Guidance/downloads/CIB-11-19-12.pdf>; <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Quality-of-Care-External-Quality-Review.html>

¹⁴ <http://www.cms.gov/apps/glossary/excelDef.asp?Letter=E&Language=English>

¹⁵ <http://www.medicaid.gov/Federal-Policy-Guidance/downloads/CIB-11-19-12.pdf>; <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Quality-of-Care-External-Quality-Review.html>

¹⁶ See Vieques 2011 Insurance Coverage table on p.30

within the previous three-year period, to determine MCO/PIHP compliance with State standards for access to care, structure and operations, and quality measurement and improvement.

- *Optional EQRO activities are defined in 42 C.F.R. 438.358 and include:* Validation of encounter data reported by an MCO or PIHP; Administration or validation of consumer or provider surveys of quality of care; Calculation of performance measures in addition to those reported by an MCO or PIHP and validated by an EQRO; Conducting PIPs in addition to those conducted by an MCO or PIHP and validated by an EQRO; Conducting studies on quality that focus on a particular aspect of clinical or nonclinical services at a point in time.

In addition, the three mandatory and five optional EQR activities should be considered to guarantee a comprehensive quality review of services provided to MiSalud enrollees. Specific attention should be directed to priority health conditions in Vieques as identified through mechanisms outlined in Recommendation #4. Low quality care indicators for high priority health conditions should be evaluated as soon as possible and a response plan developed. Furthermore, the EQRO should track the improvements in these indicators to assure disease prevention and health improvement.

RECOMMENDATION #10:

Vieques should be considered as a priority geographical (rural) site for funding consistent with support provided to other Superfund communities located in rural areas.

This recommendation is based on the addition of Vieques to the Federal Superfund list since 2005. This type of support is consistent with that provided to other superfund communities located in rural areas¹⁷, as well as recommendations of the GAO report entitled *Defense Infrastructure DOD Can Improve Its Response to Environmental Exposures on Military Installations* released May 2012¹⁸.

RECOMMENDATION #11:

The PRDOH should invest in urgently needed services, equipment and supplies for the Centro de Salud Familiar Susana Centeno (CSFSC).

Adoption of an Electronic Health Records System: The Puerto Rico Department of Health (PRDOH) should work with the Regional Extension Center (REC) to accelerate the adoption of electronic health records at the CSFSC.¹⁹ The Ponce School of Medicine was awarded \$19 million from the DHHS Office of the National Coordinator for Health Information Technology (ONC) to assist health care professionals and hospitals adopt and implement electronic health records (EHR) and use it to support improved health care. The goal is to build an information technology infrastructure that helps clinical decision making, avoid preventable medical errors, facilitate communication across providers, and make health information readily available to patients while adhering to strict confidentiality rules. It also facilitates the capture of information for the population and clinic-based disease registries. Consultative services are provided to physician practices through its REC which has met with Vieques private physicians. Currently, two of three primary care private practices have electronic health records.

¹⁷ <http://www.thefederalregister.com/d.p/2009-07-17-E9-16959>

¹⁸ <http://www.gao.gov/products/GAO-12-412>

¹⁹ Once the Commonwealth implements the infrastructure for the Medicaid E-HR Incentive Program, Medicaid eligible professionals can receive as much as \$63,750 in incentive payments over six years. Currently Medicare eligible professionals can receive as much as \$44,000 over five years.

Pharmacy Service: The CSFSC is licensed by the state for pharmacy services. Financial incentives should be created to facilitate recruitment of an additional pharmacist to address treatment delays in emergency and primary care setting because of limited services pharmacy service on-island. Currently, there is only one privately owned community pharmacy with one full-time pharmacist on the island with limited stock of specialty pharmaceuticals and supplies.

Examination Equipment and Supplies: An inventory should be conducted to assess the condition of equipment and supplies especially in examination rooms and the emergency room. Essential equipment, such as examination tables are in dire need of repair, upgrade and replacement.

Internet Access: Full internet access should be made available to the administrative and clinical team to obtain current clinical guidelines and participate in learning collaboratives, educational forums, and webinars, all of which are all critical to remaining engaged in broader public health discussions with peers.

RECOMMENDATION #12:

DHHS should remain actively involved in providing technical assistance and support in the implementation of the eleven recommendations.

The Region II Vieques Workgroup should continue to support efforts by remaining actively involved with the Puerto Rico Department of Health (PRDOH), Vieques health care providers and stakeholders in the creation of a comprehensive and preventive primary care system on Vieques. Support includes, but is not limited to, technical assistance on funding opportunities, service development, and public health infrastructure development. Federal agencies should plan future visits to the island for in-person meetings with stakeholders. HHS should remain in communication with the Navy and EPA to remain current on remediation efforts; its impact on population health; and in the development of registries, and ongoing surveillance of the health of Viequenses.

INTRODUCTION

The “*President’s Task Force on Puerto Rico’s Status Report*” was issued in March 2011 and presented its recommendations to the President and Congress on the status question as well as: (1) economic development, which includes recommendations on health care financing and services; (2) building competitive industries; and (3) the island of Vieques.

In addition to the PTF, a *Vieques Sustainability Task Force* (VSTF) was established by the Environmental Protection Agency (EPA) specifically to coordinate Federal and local efforts for comprehensive cleanup and remediation at the closed military bombing range and to develop and implement policies that boost sustainable growth and job creation in Vieques. The VSTF is composed of senior officials from the EPA, Navy, Department of Interior (DOI), Department of Energy (DOE), Small Business Administration (SBA), Health and Human Services (HHS), the Puerto Rico Resident Commissioner, the Governor of Puerto Rico, the mayor of Vieques, as well as stakeholders and residents of Vieques. Dr. Jaime Torres, DHHS Regional Director for Region II (New York, New Jersey, Puerto Rico, and the US Virgin Islands) is the HHS representative to the VSTF.

Soon after the issuance of the *President’s Task Force on Puerto Rico’s Status Report* in March 2011, Dr. Lorenzo Gonzalez, Puerto Rico Secretary of Health and Governor Luis Fortuño’s Chief of Staff, Annie Mayol, visited the Centers for Medicare & Medicaid Services, New York Regional Office (CMS NYRO) to formally discuss its recommendations. They expressed their commitment to support our efforts in addressing the report’s recommendations specifically directed to the Department of Health and Human Services.

The PTF recommendations specifically requested that the Department of Health and Human Services (DHHS) conduct a *Vieques health care services needs assessment* as well as options to address the needs of the residents of Vieques. In April 2011, HHS Regional Director Dr. Jaime Torres convened the *DHHS Region II Vieques Workgroup* (the Workgroup) comprised of Region II senior clinical and program staff from the Centers for Medicare & Medicaid Services (CMS) and the Health Resources and Services Administration (HRSA), the federal agencies responsible for the financing and delivery of health care services.

CMS ensures health care coverage for 100 million Americans. It administers Medicare and provides funds and guidance to all states and territories for their Medicaid and Children’s Health Insurance Program. With the passage of the Affordable Care Act in March 2010, CMS is responsible for implementing insurance reforms and Health Insurance Marketplaces included in the health reform law.

The Health Resources and Services Administration (HRSA), is the primary Federal agency for improving access to health care services for people who are uninsured, isolated or medically vulnerable. HRSA grantees provide health care to uninsured people, people living with HIV/AIDS, and pregnant women, mothers and children. They train health professionals and improve systems of care in rural communities.

The President's Task Force recommendations include the following:²⁰

HHS should work with the government of Puerto Rico and the municipality of Vieques to conduct a needs assessment to identify the most effective and efficient way to ensure that the people of Vieques receive the care, including expertise in environmental medicine, that they need and develop options for best addressing those needs.

HHS assists Vieques and the Puerto Rico Department of Health (PRDOH) in exploring two programs that could improve health care in Vieques:

- 1. HHS and Puerto Rico should explore the feasibility of a section 330 health center application and if a viable option, for the PRDOH to support this effort and work with the Vieques community to develop a strong application. It also recommends that HHS explore funding for health centers under the Health Center Program established by section 330 of the Public Health Service Act, specifically opportunities made available by the Affordable Care Act.*
- 2. HHS should continue to work with the PRDOH to explore Critical Access Hospital (CAH) designation and determine if the Centro de Salud de Familia facility in Vieques meets the statutory requirements for CAH designation.*

²⁰ President's Task Force on Puerto Rico's Status Report, March 2011

PRESIDENT'S TASK FORCE RECOMMENDATION: VIEQUES HEALTH CARE SERVICES NEEDS ASSESSMENT

HHS should work with the government of Puerto Rico and the municipality of Vieques to conduct a needs assessment to identify the most effective and efficient way to ensure that the people of Vieques receive the care, including expertise in environmental medicine, that they need and develop options for best addressing those needs.

Social determinants of health are the conditions in which people are born, grow, live, work and age, and the systems put in place to deal with illness and that these circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics.²¹

The residents of Vieques have been challenged on every front—from significant poverty and geographic isolation, to long-standing concerns about the risk of exposure to environmental pollutants caused by sixty years of military operations on the island. Ecotourism, as a potential economic engine, is in development. Its momentum is largely dependent on the pace of cleanup and remediation of the military training grounds by the US Navy and the Superfund site by the Environmental Protection Agency. Deep-rooted health concerns are exacerbated by the lack of a cohesive long-term public health policy that specifically addresses barriers to care, and the most urgent question in the psyche of the residents of Vieques: the role of environmental factors in disease causation.

Between April 2011 and April 2012, the Workgroup met with the Puerto Rico Department of Health and other Commonwealth government officials, to discuss the organization of health and human services, current demographic data; vital statistics; utilization and availability of health care services -- both on and off the island of Vieques. In addition, the team met with public health leaders, clinicians, and researchers from the University of Puerto Rico and its School of Public Health as well as the College of Physicians & Surgeons to obtain first-hand knowledge of their research questions and investigational activities.

In September 2011, several members of the Workgroup had the opportunity to visit the island of Vieques and met with the Mayor, the Honorable Evelyn Delorme-Camacho; senior administrators and medical director of the Centro de Salud Familiar Susana Centeno (CSFSC); a broad range of community-based private health care providers; residents of Vieques seeking care at the CSFSC; and advocates of the *Servicios de Salud Integral de Vieques*²². While there, we had the opportunity to view the CSFSC physical plant, equipment, supplies and resources. We experienced the challenges of ferry transportation to-and-from Vieques, sensed the frustration and isolation of a community in search of resources to build a healthy and environmentally safe community, and were impressed by the people's resolve to accomplish this goal.

The Region II Vieques Workgroup began the task of collecting information and data necessary to responsibly lay the foundation for a comprehensive health care service needs assessment and set out to accomplish the following:

²¹ World Health Organization http://www.who.int/social_determinants/en/

²² See Appendix A for the Vieques Site Visit Itinerary

- I. Identify the unique circumstances and challenges of the Island of Vieques***
- II. Identify current health care services and gaps***
- III. Propose tangible options for health care service development that specifically address known gaps with short and long term achievable goals***

The Workgroup obtained information from numerous sources that include Census Bureau vital statistics; demographic data compiled by the Puerto Rico Department of Health (PRDOH) and other government agencies; health care services utilization data; Medicare beneficiary enrollment data; the Puerto Rico Cancer Registry; medical and environmental sciences researchers; and interviews with government officials, health care providers, and residents of Vieques.²³

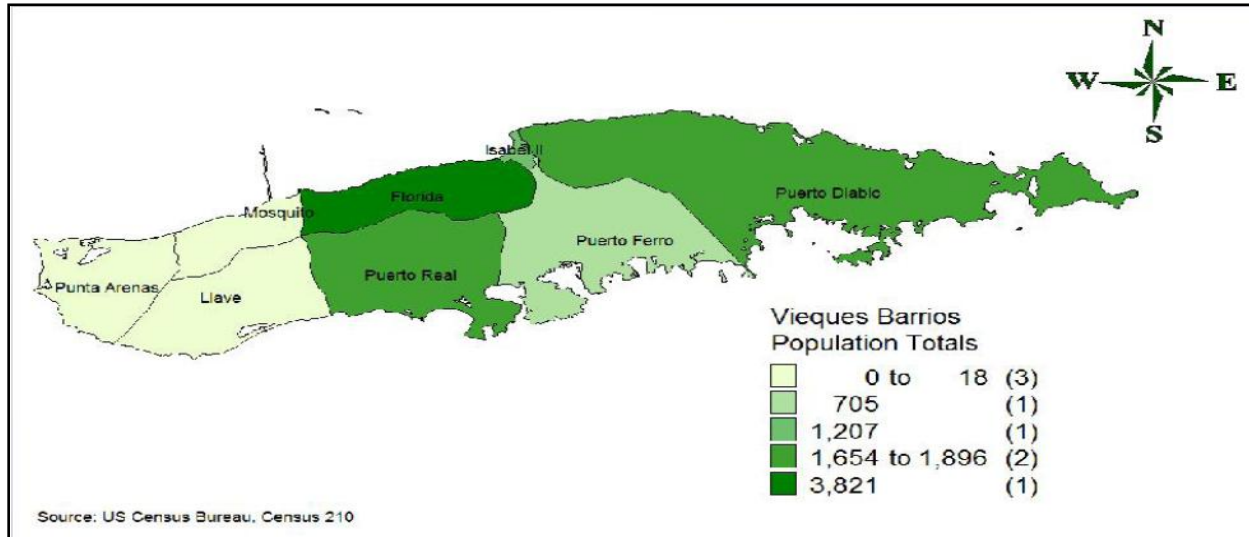
Vieques Information and Data Sources

- | | |
|--|--|
| <ul style="list-style-type: none"> • Census Bureau Demographic data • PRDOH Morbidity and Mortality data • Puerto Rico Cancer Registry • PRDOH Needs Assessments and utilization studies • <i>Estudio Continuo de Salud Para los Municipios</i> de Puerto Rico • Insurance Coverage Data • Procurador de Pacientes – Patient Advocate complaint data • MiSalud program • Government Health Insurance Administration (ASES) Claims data • MCS Health Plan Utilization data compiled by ASES • Non-emergency off-island specialty care data | <ul style="list-style-type: none"> • Susana Centeno Family Health Center (SCFHC) Emergency Room related diagnosis • SCFHC Off-Island emergency service related diagnosis • Medicaid eligibility service availability and access • Health services for veterans • Puerto Rico College of Physicians & Surgeons, Environmental Health Committee • University Puerto Rico, School of Public Health • Medical and environmental sciences researchers • Interviews with residents of Vieques, government officials, SCFHC, Vieques health care providers, clinical and environmental health researchers |
|--|--|

²³ See Appendix B for the Resource List

ISLAND OF VIEQUES: UNIQUE CIRCUMSTANCES AND CHALLENGES

Vieques is one of 78 municipalities of Puerto Rico and is comprised of eight barrios, measures approximately 21 miles long by 4 miles wide. It is separated by 18 miles of ocean between the municipality of Fajardo on the main island of Puerto Rico and the barrio of Florida, the most populated county of Vieques. It is also one of ten municipalities designated as rural.²⁴



Population Trends

Population growth over the past twenty years has been marginal with population increases of approximately 500 or less when comparing 1990, 2000, and 2010 census data.²⁵

YEAR	POPULATION SIZE	CHANGE
1990	8,602	
2000	9106	504
2010	9301	195

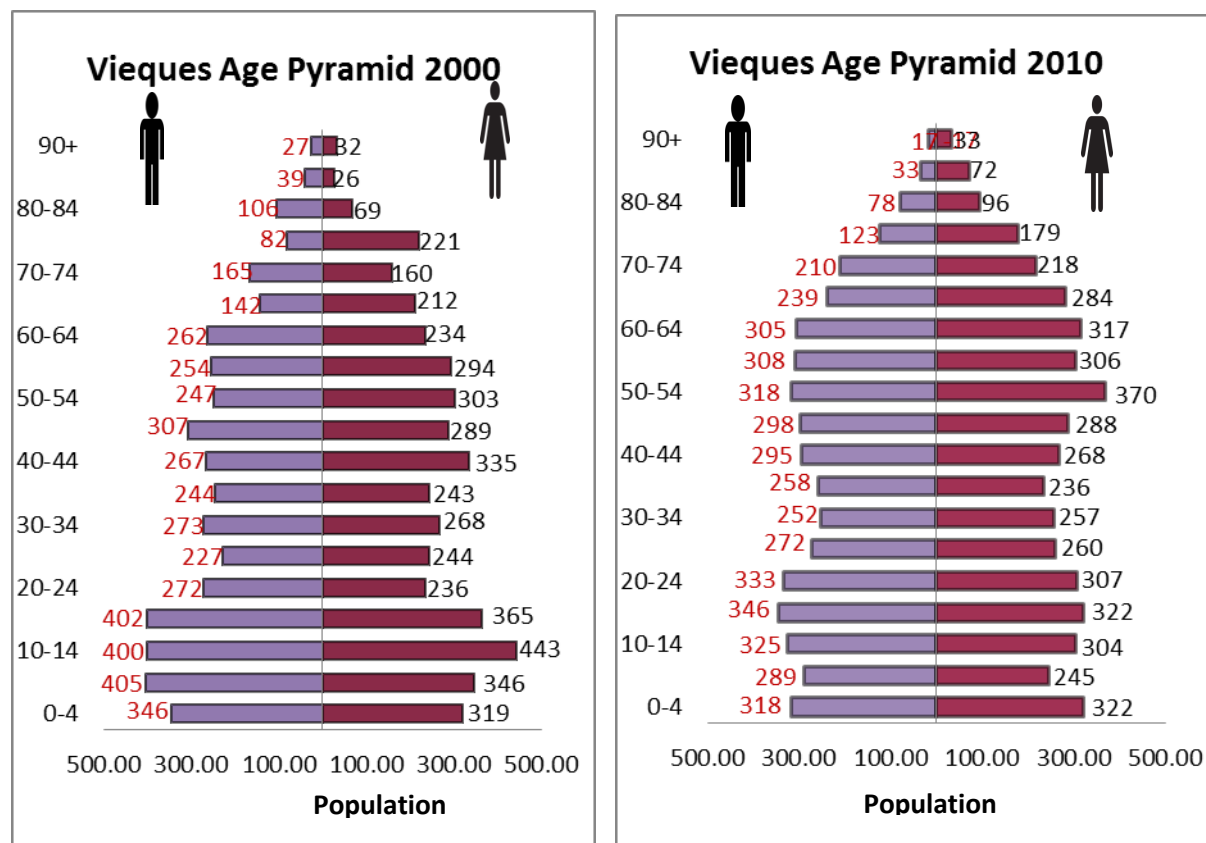
According to the 2010 Census, the island population is 9,301. The majority of Viequesenses live in the Barrio of Florida (pop. 3,821) followed by Barrio Real (pop. 1,673), Isabella II (pop. 1,459), Diablo (pop. 856) and Puerto Ferro (pop. 986). Three western counties, Punta Arena, Llave and Mosquito, have little to no population due to the previous use of these areas for military bombing practice and munitions storage.

²⁴ See Appendix C –OMB Map

²⁵ Mayol, A. et al. Demographics and Health Care Services Information Vieques Puerto Rico. Puerto Rico Department of Health Government of Puerto Rico. May 16, 2011

POPULATION PYRAMIDS

The US Census Bureau describes the value of the population pyramid as follows: *“The age-sex structure determines the potential for growth of specific age groups and the total population. Therefore an understanding of a population age structure is critical for informed decision-making. The age-sex structure can be studied through population pyramids. The shape of the pyramid indicates the potential for future growth and can also provide hints about past trends. A top-heavy pyramid suggests negative population growth that might be because of any number of factors, including high death rates, low birthrates, and increased emigration. A bottom-heavy pyramid suggests high birthrates, falling or stable death rates, and the potential for rapid population growth.”*²⁶



Compared to the 2000 Vieques population pyramid, the population of 2010²⁷ is consistent with a *constricted pattern*. Of note is a significant decrease in children aged 19 and younger and an increase in the population aged 50 and older. Almost one-quarter of the population is 60 years and older, an important indicator of future health care service demands.

YEAR	POPULATION SIZE OF CHILDREN UNDERAGE 18	CHANGE
1980	2969	
1990	2875	-94
2000	2704	-171
2010	2196	-508

²⁶ Source: http://www.census.gov/schools/for_teachers/teaching_ideas.html

²⁷ US Census Bureau

The basis for these trends is not clear and requires further study, especially because it does not mirror the trend observed on the main island. Contributing factors may include:

1. Out-migration to the main island due to socioeconomic conditions, especially among young adults
2. Low birth rate as a result of increased use of contraceptive methods and/or increased fetal wastage
3. Out-migration of children and families with special health care needs.²⁸

Community health care providers and advocates noted that services for children with special health care needs are very limited in Vieques and access to care is aggravated by barriers associated with travel.

Tourist Population

According to the Mayor of Vieques, tourism can have a dramatic impact on population size at any given time, as it can account for as much as 10 to 20% increases in the population.

DEMOGRAPHIC PROFILE ²⁹ (MARCH 2011)

- Approximately 56% of the population aged 25 and over graduated from high school and 13.8% have a bachelor's degree or more
- Vieques has a labor force of 3,310 with an unemployment rate of 16.4%, similar to that of mainland Puerto Rico
- About 56% of the population aged 16 and older *does not* participate in the labor force
- Of those in the labor force, 40% are employed by local government, specifically in education, health, and social services
- The median household income is \$14,910 or \$1,242.50 per month
- Approximately 65 % live below the Federal Poverty Level
- 47% of individuals and 42.7% of families have an income below the Commonwealth Poverty Level

²⁸ Children with Special Health Care Needs (CSHCN) are provided services via referrals from HHS Title V Maternal Child Health block grant funding to the PRDOH at one of seven pediatric centers located in the San Juan Metropolitan Area, Arecibo, Bayamón, Caquas, Fajardo, Ponce and Mayaguez. However the range of children eligible for services has been significantly decreased. Children with the following special needs are eligible for services at these centers: neural tube defects, cerebral palsy, neurodegenerative conditions, genetic and metabolic conditions associated with neurological disorders, muscular dystrophy, congenital anomalies or moderate to severe muscular-skeletal malformations, skin and subcutaneous conditions causing moderate to severe physical limitations, hearing and vision disorders (strabismus/ptosis and legal blindness). If children need additional special care and are enrolled in "Mi Salud" referrals can be obtained for subspecialty care, most of which are located in or near the capital of San Juan. Almost 80% of parents have experienced a decrease in obtaining needed referrals. Source: Puerto Rico Department of Health.

²⁹Source: Puerto Rico Department of Health http://factfinder2.census.gov/faces/nav/jsf/pages/community_facts.xhtml

- 63.8% of families with children under the age of 5 have income below Commonwealth Poverty Level
- 26% of female adolescents are a parent to one or more children
- 81.3% of households are single-parent or common law compared to 57% on the main island
- 41% of households receive Food Stamps and Supplemental Nutrition Assistance Program (SNAP) benefits
- Household characteristics:
 - 35.4% are single-person households
 - 33.6% include individuals aged 65 and older
 - 20% are single parent households

Many Viequeses regard the disruption of its agricultural economy by the US military for live-impact operations and the current pace of clean-up and remediation as the most significant contributing factor to its demographic profile.

GEOGRAPHIC ACCESSIBILITY AND TRANSPORTATION

Though Vieques is 12 nautical miles from Fajardo via the Atlantic Ocean, it is 18 nautical miles from the port of Fajardo to the Vieques port city of Isabella Segundo. Generally, travel to and from Vieques is accomplished either by a Passenger or Cargo & Car Ferry.

Passenger Ferry Daily Schedule

Departs Vieques	Departs Fajardo
6:30am	9:30am
11:00am	1:00pm
3:00pm	4:30pm
6:30pm	8:00pm

Cargo and Car Ferry Schedule-Monday thru Friday

Departs Vieques	Departs Fajardo
6:00am	4:00am
1:00pm	9:30am
6:00pm	4:30pm

As of the writing of this report, the cost of the ferry to-and-from Vieques is \$2.00 each way. The trip takes approximately one to one-half hours, but is subject to weather conditions resulting in cancellations. The ticket office is frequently closed within the hour prior to departure requiring people to wait for the next ferry. Provisions are made so that residents of Fajardo and Vieques have first preference to obtaining tickets and boarding the ferries, as well as families with children below the age of two, pregnant women, and the elderly. However, the lack of tiered boarding results in boarding on a first-come first-serve basis.

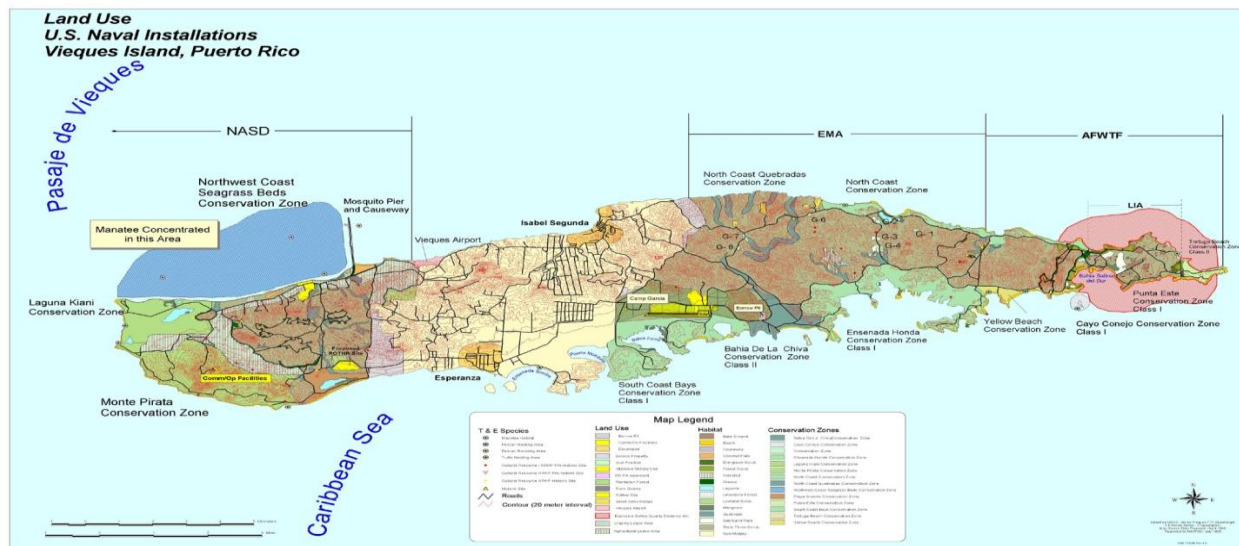
The last passenger ferry of the day departs from Vieques at 6:30pm. Evening and night medical emergencies that require treatment on the main island are transferred by air ambulance. However, when patients are discharged from the emergency department after the departure of the last scheduled ferry, it is not uncommon for them to wait through the evening and night in the emergency department

until the next morning or wait at the ferry terminal overnight, resting on chairs or the floor until the following day.

Air travel is available at a cost of approximately \$55 to \$60 for a one-way fare to the Fajardo Airport and one can also travel to-and-from Vieques from the Munoz Marin International Airport located in the capital city of San Juan, at a cost of approximately \$100 for a one-way fare.

The ferry service has a local reputation for only loose adherence to schedules and is unreliable. At both ends of the trip, it would usually be necessary to arrange for transportation between the terminal and the medical service location or the patient's residence, as applicable. The workgroup, which traveled to and from Vieques during its visit there, confirmed that reputation through first-hand experience. The outbound trip was delayed by 90 minutes, largely because of difficulties the crew had with loading vehicles. The return trip to Fajardo was delayed by an hour because the ferry was late in getting to Vieques. Local residents told us that of several ferries in the fleet, only one had been operational during the several months prior to our visit and that it sometimes makes an unscheduled detour to the nearby island of Culebra to cover the need for service there. The detour may add another hour to the trip. During both trips, our team noticed other travelers who were using canes, walkers and wheelchairs, and who appeared to be going to and from medical appointments. When we boarded the ferry at Fajardo, it was high tide and the gangway between the dock and the boat was dangerously steep and difficult to negotiate, even for the able bodied. The experience lent credence to the many stories told by Vieques residents of missed medical appointments on the main island, people who missed the evening return ferry and had to spend nights sleeping in the Fajardo terminal, and others that abandoned their treatment because of the rigors of travel.

BRIEF SUMMARY OF NAVAL OCCUPATION IN VIEQUES AND SUBSEQUENT ENVIRONMENTAL IMPACT: VIEQUES LAND USE MAP



Source: http://www.lib.utexas.edu/maps/americas/vieques_navy_1999.jpg

"In 1941, as the United States entered World War II, the U.S. Navy began to acquire Vieques property by condemnation of private lands. By 1950, the Navy owned the island's entire eastern and western portions. With its wide beaches, shallow approaches, and warm water temperatures, as well as its distance from commercial air and shipping lanes, the Navy believed that Vieques was not only ideal for naval and Marine warfare training, it was one of the few locations in the Western Hemisphere that met all of the Navy's requirements.

The Navy's Atlantic Fleet Weapons Training Facility (AFWTF) established its so-called Inner Range on Vieques, comprising the Eastern Maneuver Area (EMA), and the Live Impact Area (LIA). Marines conducted live-fire exercises in the EMA. Aerial explosive-ordnance and naval gunfire practice were limited to the 900-acre LIA, on the island's easternmost end. Camp Garcia, the principal Marine Corps encampment on Vieques, was also within the EMA's southern section.

For decades-- particularly after the mid-1970s-- ships and aircraft fired, launched, and dropped live bullets, artillery rounds, rockets, missiles, and bombs into the LIA. In the years following World War II, Viequenses, other Puerto Ricans, scientists, and activists increasingly opposed the navy's activities on Vieques, contending that those activities deprived many residents of their livelihood (primarily fishing), exposed them to injury and, because of chemicals in the explosives, to long-term illness."³⁰

³⁰ DHHS Agency for Toxic Substances and Disease Registry, An Evaluation of Environmental, Biological and Health Data from the Island of Vieques, Puerto Rico, Release Date: December 8, 2011, p. viii http://www.atsdr.cdc.gov/hac/pha/vieques/2011_ViequesReport.pdf

Land use, habitat, and conservation zones reflect important federal actions taken since 2001:

“In 2001, the land previously used for munitions storage on the western side of Vieques was transferred to the Municipality of Vieques (4,249 acres), DOI (3,100 acres) and the Puerto Rico Conservation Trust (800 acres). The Navy retained 100 acres for its radar facility. In 2003, President Bush signed legislation that allowed the Navy to stop training on Vieques, and permitted the transfer of the former training area, which consisted of approximately 14,572 acres on the eastern side of Vieques to the U.S. Fish and Wildlife Service.”^[31]

In 2005 Navy land on both the eastern and western sides of Vieques was added to the Federal Superfund list of the most contaminated hazardous waste sites. The Navy is responsible for remediation, and EPA is overseeing the cleanup work. Large quantities of bombs, projectiles, rockets, pyrotechnics, submunitions, and igniters remain on the site. As of February 2010, the navy had collected and either destroyed or explosively vented 32,095 of the remaining items. The Navy plans to spend \$351 million on site remediation, with a goal of completing the process by 2021³².”

“According to records of the Federal Government and testimony of Navy personnel, the island of Vieques, Puerto Rico, has high levels of heavy metals and has been exposed to chemical weapons and toxic chemicals, including napalm, agent orange, depleted uranium, white phosphorous, arsenic, mercury, lead, aluminum, cadmium, antimony, magnesium, TNT, PCBs, RDX, barium, cyanide, solvents, and pesticides.”³³”

³¹ See Appendix D: Wildlife map

³² HR 1645

³³ Health Systems Profile, Puerto Rico, USAID and the Pan American health Organization, September 2007, p. 52

PUERTO RICO'S HEALTH CARE SYSTEM

Puerto Rico's health care system is comparable to that in the 50 States, with similar financing and delivery models. The private sector is the largest provider of services for large employers as well as *MiSalud*, the Government Health Insurance Plan. The two supratertiary care hospitals are government administered and include *Centro Médico* (Medical Services Administration of Puerto Rico, Spanish acronym ASEM) and the *Cardiovascular Center of Puerto Rico and the Caribbean*. Models of care include multiple types of managed care organizations (HMO, PPO, IPAs); fee-for-service; federally funded community health centers under the Health Center Program Section 330; diagnostic and treatment centers (DTC); public clinics; managed behavioral health organizations (MBHO); government sponsored substance abuse services; and non-governmental voluntary organizations.

Commonwealth of Puerto Rico Government Health Insurance Plan (*MiSalud*)

For more than forty years, the Commonwealth of Puerto Rico provided health care services for the majority of the population through a government financed public health system comprised of regional hospitals and staff model clinics in each of the 78 municipalities. A decentralized organization of health care services remained unchanged until 1993 with the passage of the *Health System Reform Act* (Law 72). The law shifted the provision of publicly financed health care services from the public to the private sector.

The program has three sources of funding:

1. Commonwealth general funds
2. Municipal fund contribution
3. Medicaid funds

Eligible beneficiaries include:

1. Federally eligible Medicaid beneficiaries
2. Children enrolled in the Children's Health Insurance Program to up to 200 percent of the Commonwealth poverty level
3. Individuals and families certified as medically indigent by the Puerto Rico Medicaid Program
4. Local government employees choosing to participate

In 1993, the Commonwealth implemented Law 72, which established the *Government Health Insurance Plan (GHIP)*, also known as *Reforma*. The law also created a new public agency, the *Puerto Rico Health Insurance Administration* (the Spanish acronym ASES), to contract with commercial insurance companies utilizing an island-wide managed care service delivery model.

In the same year (1993), Law 103 authorized the privatization of public health facilities. Three years later, the *Government Health Facility Privatization Act of 1996* (Law 190) established the legal framework authorizing the Secretary of Health to engage in leasing, sub-leasing, sale, and transfer arrangements, or establish other contracting models in government health institutions in Puerto Rico. The law authorized the Department of Health (DOH) to sell its 58 hospitals and Diagnostic and Treatment Centers (DTC) located throughout most of the municipalities. Ten years later, Law No.3 of 2003, prohibited the further sale, transfer, exchange, or alienation of health care facilities to private interests resulting in the Health Department retaining ownership of 22 diagnostic & treatment centers. The law was subsequently relaxed to allow for leasing to non-profit corporations and corporations

specializing in health care.³⁴ In Vieques, the Centro de Salud Familiar Susana Centeno (CSFSC) remains under the administration of the Puerto Rico Department of Health, after a short period of privatization proved to be a financial failure.

In 2009, *Reforma* covered more than 1.5 million people or 41% of the general population. It was organized as a geographic managed care program where beneficiaries were assigned to one of three physical health plans and two mental health plans contracted to provide coverage to specific geographic regions. Expenditures exceeded **\$1.2 billion** for the medically indigent, with the Commonwealth and municipal government financing 78% of the costs, largely due to the Medicaid fiscal ceiling established in federal statute.

Effective October 1, 2010, the *Reforma* program was renamed *MiSalud*. While it continues to provide the services offered by *Reforma*, new contracts were executed to encompass new health care service initiatives designed to improve the delivery of health care services to the Medicaid population.

MiSalud is comprised of eight geographical service regions and one “Virtual Region”³⁵. Two managed care entities (MCEs) provide comprehensive health services to *MiSalud* enrollees. The managed care entity, Humana, covers three service regions. Triple S insurance company covers the remaining service regions and is the Third Party Administrator for the northeast region, effective November 1, 2011.³⁶ The two contractors are reimbursed on a risk capitated basis. Mental health and substance abuse coverage are “carved out” and provided by APS Healthcare Inc. (APS), a managed behavioral health organization (MBHO) which functions as a Prepaid Inpatient Health Plan (PIHP). It covers all eight service regions and the Virtual Region. ASES also contracts with two pharmacy benefit management (PBM) companies, Caremark and MC-21, to implement comprehensive PBM programs.

Most residents of Vieques are eligible for *MiSalud* although a significant percentage has not enrolled in the program. Prior to November 2011, Medical Card Services (MCS) was the contracted managed care plan for the northeast region, which includes Vieques and Culebra. The MCS contract was terminated by the Commonwealth on October 30, 2011 and Triple S insurance company is the new *MiSalud* contract for the northeast region as of November 1, 2011. (See ASES map).

Below is the current *MiSalud* regional managed care delivery system. There are eight geographical service regions and one “Virtual Region”.

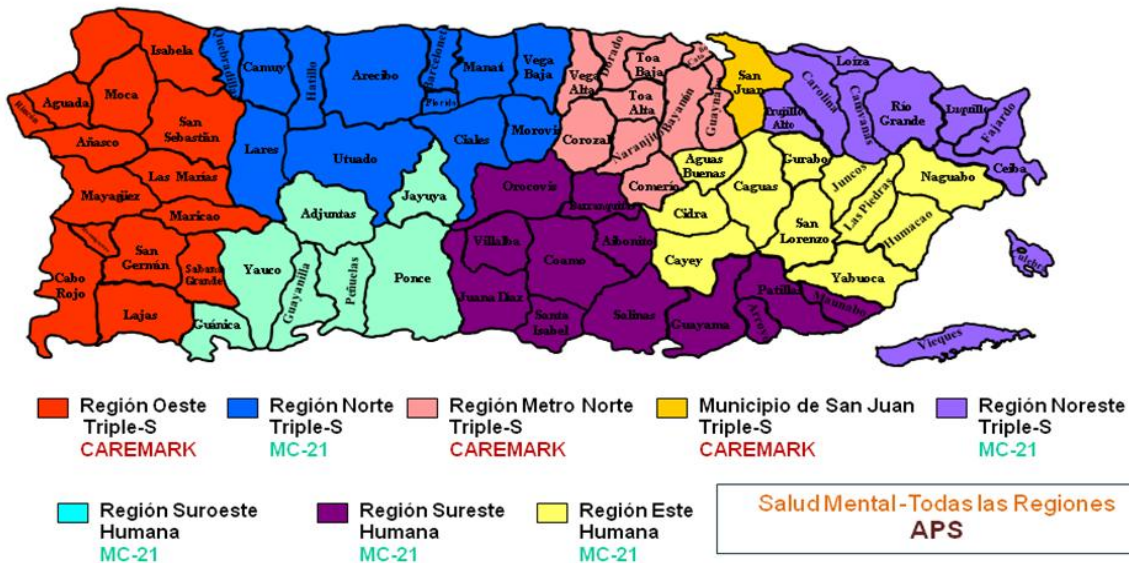
³⁴ Ibid, p. 53

³⁵ Virtual Region encompasses services provided throughout Puerto Rico to two groups of Enrollees: Foster care children who are under the custody of Administración de Familias y Niños (ADFAN); and certain survivors of domestic violence referred by the Office of the Women’s Advocate (Oficina de la Procuradora de las Mujeres). The managed care entity (MCE) contracted to provide services for the Virtual Region must provide medically necessary services regardless of the enrollee location. The MCE must build a provider network in those regions not under contract and provide access to an out-of-network provider when an in-network provider is not available.

³⁶ Prior to November 2011, Medical Card Services (MCS) was the contracted managed care plan but was terminated by the Commonwealth on October 30, 2011



Administración de Seguros de Salud de Puerto Rico Aseguradoras y PBMs por Región 1ro. de Noviembre de 2011 Aguadilla



The Puerto Rico Medical Assistance Program (Medicaid) is only responsible for eligibility determination and enrollment. Health care services to beneficiaries are administered by ASES, which regulates, administers, supervises, and evaluates contracted health care services and reimburses managed care organizations (MCO) for services to its enrollees.

It is also important to note that Puerto Rico has a Medicaid managed care delivery system; there is no Medicaid fee-for-service. The Managed Care Entities (MCE) contracted under *MiSalud* are reimbursed on a *capitated risk basis*. Furthermore, the “freedom of choice” requirement as described in 42 CFR 431.51(b), does not apply in Puerto Rico, meaning that there is no choice of managed care plans. Beneficiaries are enrolled into the managed care plan contracted for the service region where they reside.

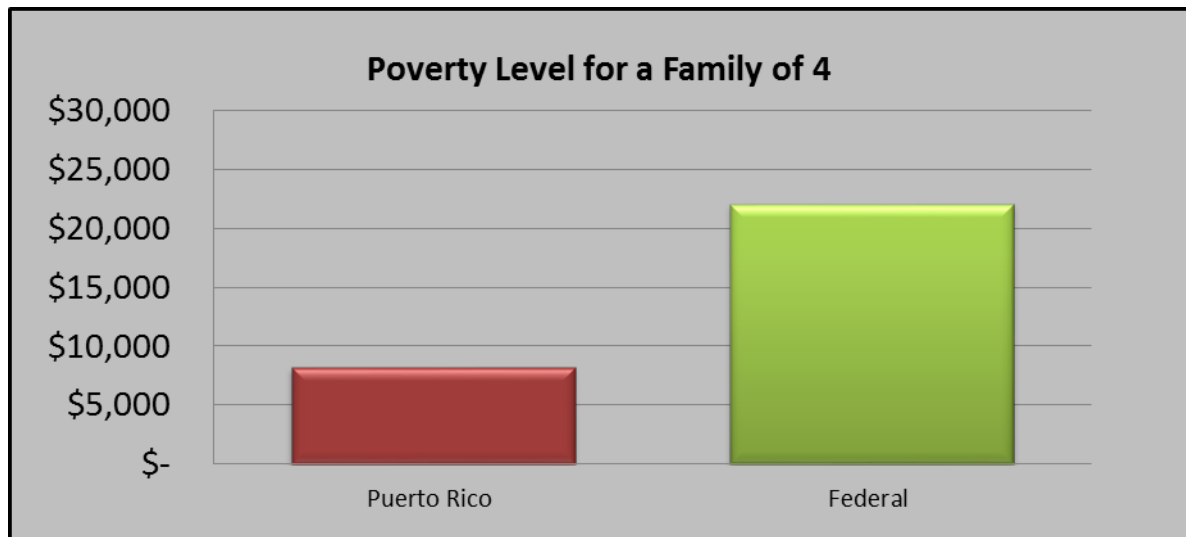
FEDERAL HEALTH CARE FINANCING: MEDICAID PROGRAM

2010 Federal Poverty Level vs. Commonwealth Poverty Level

In 2010, the Federal Poverty Level (FPL) for 2010 for a family of four was \$22,050. The Commonwealth Poverty Level (CPL) was \$8,220 for a family of four and has not changed since 1998, making the *CPL equivalent to only 37 percent of the FPL*. Despite the use of the Puerto Rico poverty level, **22.5 percent** of the population was Medicaid eligible in 2010, ranking 13th when compared to states with the highest proportion of Medicaid eligible beneficiaries to its total population for the same year.

Over 182,009 or 20 percent are dually eligible for Medicare and Medicaid benefits and make up almost 30 percent of the Medicare population in Puerto Rico. The number of beneficiaries could easily double,

except for the fact that the *federal* Medicaid income eligibility criterion in Puerto Rico is lower than **50 percent** of the Federal Poverty Level.



*

Federal Medical Assistance Percentage

For States, the Federal government matches all eligible State Medicaid expenditures *without limit* and the Federal Medical Assistance Percentage (FMAP) in States ranges from 50 to 74.18 % based on average per capita income. Federal matching of eligible State Medicaid expenditures incurred by Puerto Rico, the Virgin Islands and the Pacific U.S. territories (Guam, American Samoa, and the Commonwealth of the Northern Marianas) is capped. Although the cap increases annually at a rate equal to the medical component of the Consumer Price Index, health expenditures spent by Puerto Rico on Medicaid beneficiaries exceed the amount for which federal matching funding is available. Moreover, the FMAP for Puerto Rico was fixed by statute at 50 percent until June 30, 2011, and then increased to 55 percent. Historically, Puerto Rico has spent more to provide the basic services required by the Medicaid Program than the amount for which federal matching funds were available because of the cap, and, as a result, the *effective* FMAP (federal match) for Puerto Rico was approximately 23.3 percent.

The impact of the statute has had a direct effect on health care service access and coverage, as well as support for essential administrative components of the program. For example, in 2008, Puerto Rico received \$280 million in federal Medicaid funds for coverage of approximately 900,000 beneficiaries. States with similar number of beneficiaries, such as Virginia and New Jersey, received federal funding of \$2.5 billion and \$4.5 billion respectively in the same year.

Since 2009, the Commonwealth has received a significant infusion of funding for Medicaid program services:

American Recovery and Reinvestment Act of 2009 (ARRA) signed by President Obama in February 2009, substantially increased Medicaid funding for Puerto Rico. The Territories had two options:

1. Elect a 15% increase in the Medicaid cap and a 6.2% increase to the FMAP rate for 2009, 2010 and first quarter of 2011 (extended to the third quarter of 2011, with a FMAP phasedown in the last quarter).

2. Elect to receive a 30% increase to the Medicaid cap for 2009, 2010 and first quarter of 2011 (extended to the third quarter of 2011).

The Commonwealth government chose Option 2 resulting in the addition of more than \$80 million in 2009 and 2010 -- and over \$65 million in 2011 to the Medicaid program. Funding totals exceeded \$350 million *for each year*, assisting the Commonwealth in meeting considerable financial shortfalls.

	2009	2010	2011
Medicaid Cap	\$272,400,000	\$280,000,000	\$290,600,000
ARRA funds	\$81,720,000	\$84,000,000	\$65,385,000
Total	\$354,120,000	\$364,000,000	\$355,985,000

The Patient Protection and Affordable Care Act (PPACA) signed by President Obama in March 2010, changed the statutory Federal Medical Assistance Percentage (FMAP) for Puerto Rico and all territories from 50 percent to 55 percent, effective July 1, 2011. It also temporarily increased federal funding available to the U.S. Territories, *representing the largest increase in federal healthcare funding for the territories, including Puerto Rico*. Specifically, there is a total of **\$5.5 billion** increase in the Medicaid cap for Puerto Rico from July 1, 2011 through September 30, 2019.

FFY	2008	2009* (ARRA begins)	2010	2011**	2012
MEDICAID	\$260,400,000	\$272,400,000	\$280,000,000	\$290,600,000	\$298,700,000
ARRA		81,720,000	84,000,000	65,385,000	
EAP	37,469,005	40,264,354	42,111,754	42,205,155	43,580,880
EAP ARRA		12,079,306	12,633,572	9,496,160	
CHIP	61,019,987	148,642,755	117,253,982	99,566,548	103,910,799
ACA***				214,242,662	626,991,530
TOTAL	\$358,888,992	\$555,106,415	\$535,999,308	\$721,495,525	\$1,073,183,209
% INCREASE OVER 2008		54.7%	49.3%	101%	199%

* ARRA –American Recovery and Reinvestment Act; ** Extension of ARRA for Fiscal Year 2011 (Qtrs 2&3) – Public Law 111-226; *** ACA- Puerto Rico will receive \$5,476,390,052 from 7/1/2011 through 9/30/2019

Unique Circumstances of Puerto Rico and Medicare Advantage

The Medicare Modernization Act of 2003 created the Medicare Advantage (MA) program and Prescription Drug Benefit (Part D) expanding care models for Medicare beneficiaries beyond Medicare Fee-For-Service (also known as Traditional Medicare). In response, the private sector formed a large number of plans on a scale few expected. MA plan popularity is in large part a result of benefits and services offered beyond those mandated in Original Medicare. It has great appeal to low income beneficiaries who can choose plans with low or no monthly premiums and offer important services, such as vision, hearing and dental care. National data obtained through the *Medicare Beneficiary Survey* found that 57% of beneficiaries who chose an MA plan over Traditional Medicare had incomes between \$10,000 and \$30,000.

Reasons for MA popularity in Puerto Rico are not unlike those noted in states, as 44% of seniors have incomes below the federal poverty level. In 2011, of the 1,592 Medicare beneficiaries in Vieques, 1,046

or 66% enrolled in a MA plan. This penetration rate is consistent with the rest of Puerto Rico, where the penetration rates range from 52.8% to 78.4% across the 77 municipalities.

VIEQUES 2011 INSURANCE COVERAGE³⁷

Insurance	Population	Comments
MiSalud* (Medicaid)	2627	Physical and Behavioral Health. Currently, Triple S and APS (Managed Behavioral Health Organization) are contracted providers with ASES. <i>*CSFSC notes that the eligible population is much higher but are individuals who have not yet enrolled despite access to the Medicaid Eligibility Office is conveniently co-located in the CSFSC.</i>
Medicare Fee-for -Service	546	Also known as Traditional Medicare. Individuals aged 65 and older or persons with disabilities and end stage renal disease.
Medicare Advantage ³⁸ Medicare Platino	1,592 Medicare beneficiaries-- of which 1,046 are enrolled in Medicare Advantage and 303 are dually eligible for Medicare and Medicaid	Medicare beneficiaries can opt to receive services under a managed care model. It can be a preferred provider organization (PPO) or health maintenance organization model (HMO). Eligibility criteria for enrollment in Medicare Advantage is the same as that for Traditional Medicare, except the beneficiary must have Part A (hospital insurance) and Part B (medical insurance). In 2012, Vieques has a Medicare Advantage penetration rate 61.06% and includes services provided by the following plans: Medicare y Mucho Mas (MMM) Medical Card Services (MCS) Triple-S The Medicare Platino plans are <i>Special Needs Plans</i> for dually eligible beneficiaries.
Commercial Insurers	1122	Includes private group and individual plans
Veterans Administration	305	The VA is a closed health care system.
TOTAL	5,646	Approximately 61% of the population is insured.

³⁷ Source: Puerto Rico Office of the Insurance Commissioner

³⁸ http://www.cms.gov/MCRAdvPartDENrolData/01_Overview.asp#TopOfPage

VIEQUES HEALTH STATUS AND HEALTH CARE SERVICES

The World Health Organization defines health as “the state of complete physical, mental and social well-being-not merely the absence of disease or infirmity.”³⁹

This section describes the health care delivery system in Vieques. The Workgroup assessed provider types; organization of services; health indicators linked to effective health promotion and disease prevention activity; access to preventive health screening and specialty care; utilization of services; morbidity and mortality; and environmental health research and activities. The principles of comprehensive primary care guided our appraisal of health care services for Viequenses since primary care is the foundation of a health care system. It includes health promotion, disease prevention, health maintenance, patient education, counseling, and diagnosis and treatment of acute and chronic health conditions in a variety of health care settings. Primary care physicians and teams are expected to coordinate care and services in collaboration with specialists and community based resources. The Workgroup also used certain primary care indicators to assess the effectiveness of public health strategies which are designed to protect the health of communities through education, promotion of healthy lifestyles, and research for disease and injury prevention.

As outlined in the previous section, the demographic profile of Vieques illustrates the extent of poverty, geographic isolation, limited transportation options, and history of environmental pollution on the island. All are powerful determinants of health. However, the Workgroup faced two challenges: (1) There is no single data source that clearly establishes the relationship between the social determinants of health and health outcomes; (2) Vieques represents 0.24% of the population of Puerto Rico. As such, there are challenges associated with health data trend analysis. However, data obtained from the Puerto Rico Department of Health, Office of Vital Statistics, Cancer Registry, Medicare and *MiSalud* managed care provider networks; and *MiSalud* claims data provides a picture of their interplay.

Primary Care in Vieques

The health care delivery system is comprised of two communities of health care professionals: the Centro de Salud Familiar Susana Centeno (CSFSC), a public Diagnostic & Treatment Center (Spanish acronym CDT) administered by the Puerto Rico Department of Health, and private health care professionals who reside on the island of Vieques or participate in insurance company provider networks based on the main island. The Workgroup found the public and private sector distribution of provider types and services to be limited and uneven.

³⁹ American Schools of Public Health <http://www.asph.org/document.cfm?page=300>

CONTINUUM OF HEALTH CARE SERVICES



**PERFORATED CIRCLES INDICATE SERVICES LOCATED OFF-ISLAND OR NOT AVAILABLE (NA).

VIEQUES HEALTH CARE PROVIDERS AND SERVICES

Provider Type	Comments
Primary Care	Susana Centeno Diagnostic & Treatment Center (CSFSC) -4 generalists (includes the medical director) 3 private practice Generalists
Specialty Care	One urologist. NO on-island specialty care (Internal Medicine, Cardiology, Pulmonology, Nephrology (unrelated to dialysis) Gastroenterology, Rheumatology, Neurology, Dermatology.
Labor & Delivery	CSFSC is the only provider. Current staffing pattern <ul style="list-style-type: none"> • 3 Obstetrician-Gynecologists (equivalent to 1 FTE) • 5 Pediatricians (equivalent to 1 FTE) • 3 Anesthesiologists (equivalent to 1 FTE)
Emergency Medical Services	CSFSC is the only provider and staffed by 1 generalist at any time.
Behavioral Health	There are two private psychologists but no on-island psychiatrist. The CSFSC has a part-time clinical social worker and psychologist. Psychiatric emergencies are evaluated and managed by generalists at the CSFSC.
Dental	There are 3 private practice dentists. The CSFSC offers services for a total of 120 hour/month.
Hospital	None
Skilled Nursing Facility	None
Home Care	Salud en el Hogar del Caribe (Certificate of Need for coverage in Vieques and Culebra)
Hospice	Provided as a home care service under Salud en el Hogar
Outpatient Physical Therapy	Provided as a home care service under Salud en el Hogar
Comprehensive Outpatient Rehabilitation Facilities	None
Nursing Home	None
Community Mental Health Center	None
Dialysis Facility	Dialysis Centro Renal is a Medicare certified facility co-located in the CSFSC. The Unit has four stations and is at full capacity with 24 patients. There are 3 dialysis shifts from Monday through Saturday. Currently 24 patients receive dialysis. Three nephrologists make up one FTE (cover weekends)
Ambulatory Surgical Center	None
Pharmacy	Farmacia San Antonio
Laboratories	Laboratorio Clinico Santa Lucia; Laboratorio Clinico del Este Quest Laboratory of Puerto Rico for complex and specialty studies
Ambulance	2-3 ambulances administered by the municipality
Non-emergency Transportation	<i>TransCita</i> van and car service for medical appointments
Durable Medical Equipment	Premium Medical Supply and Equipment Best Option, Inc. (infusion company)
Radiology	Basic x-rays only available at CSFSC from 8am-Midnight (no portable x-ray service)
Veteran Administration Health Services	Veteran Rural Health Clinic is co-located in the CSFSC
Optometry	1 private provider

CENTRO DE SALUD FAMILIAR SUSANA CENTENO⁴⁰

The Puerto Rico Department of Health administers the Centro de Salud Familiar Susana Centeno (CSFSC), the only public provider of health services and facility in the Municipality of Vieques⁴¹. It operates 24 hours a day, seven days a week, 365 days of the year. It is one of several “direct procurement pilot projects” that directly contracts with the Commonwealth through ASES to provide services to individuals who are insured with basic and catastrophic health insurance coverage through *MiSalud*. The health center is available to all residents of Vieques and to a floating population that greatly increases during holidays and weekends. It has an operating budget of \$7.2 million annually and the building structure is property of the Municipality of Vieques.

The Vieques Chamber of Commerce lists the CSFSC as a hospital. The Office of the Assistant Secretary for the Regulation and Accreditation of Healthcare Facilities (Spanish acronym SARAFS) has licensed the facility as a two-bed hospital, with the most recent license issued April 19, 2011 through April 18, 2013. It is also licensed for maternity services, with a labor and delivery room and one surgical suite; two postpartum beds; a clinical laboratory; pharmacy; x-ray service; and an emergency room.⁴²

Except for 2010, the CSFSC averaged about 12,000 visits annually since 2007.

YEAR	OUTPATIENT CLINIC VISITS
2007	12,325
2008	12,269
2009	11,951
2010	11,046

The health center offers outpatient clinic services staffed by general practitioners and organized as “walk-in” and scheduled clinics, Monday to Friday from 7:00 am to 4:00 pm. There are two specialty clinics, obstetrics and gynecology, and pain management. Both are available by appointment only. Walk-in immunization services are available to all age groups from 7am to 3pm. It also offers services through several state and federally funded categorical programs:

Woman, Infant, Child Program (USDA)

Woman, Infant, Child (WIC) nutrition grant program is federally funded and provides supplemental foods, nutrition education and health care referrals to low-income pregnant, breastfeeding, as well as *non*-breastfeeding mothers, infants, and children up to age five at nutritional risk.

Maternal Child Health Program (HRSA)

Puerto Rico Department of Health receives Title V Maternal Child Health grant funding from the HRSA Maternal Child Health Bureau.⁴³ Some of the services are provided on site at the CSFSC. Most of the services for Children with Special Health Care Needs are provided on the main island. Although the closest services are located in Fajardo, most of the subspecialty services are located in the San Juan metropolitan area. In addition, the PRDOH receives additional funding through the Affordable Care Act

⁴⁰ Source: Puerto Rico Department of Health

⁴¹ See Appendix C for the Center’s Floor Plan

⁴² See Appendix D for facility license

⁴³ Health Resource Service Administration Title V Maternal Child Health Grant Program. <http://mchb.hrsa.gov/programs/titlevgrants/index.html>

for the Maternal, Infant, and Early Childhood Home Visiting Program.⁴⁴ Services in Vieques consist of one nurse and community outreach worker for case management, counseling on prenatal, newborn, and infant care up to two years of age. Pregnant women are referred based on risk factors established by the program and can also self-refer, as long as they have one risk factor identified by the MCH program. Both programs are available Monday – Friday from 7am to 4pm.

Mental Health Services

Mental health services at the CSFSC are financed by the Mental Health and Addiction Prevention Services Administration (Administración de Servicios de Salud Mental y Contra la Adicción or ASSMCA), which supports a part-time psychologist and a clinical social worker for mental health services. The *MiSalud* insurance program contracts with APS Healthcare, a behavioral managed care organization responsible for island-wide mental health service delivery. All psychiatric emergencies, with the exception of suicide attempts, are evaluated and managed by generalists in the Center's emergency room.

The CSFSC offers additional essential and co-located services.

Emergency Services

The CSFSC is the only provider of emergency services. Its 24-hour Emergency Room is staffed by a general practitioner at all times and is equipped with three observation beds, although there are 18 beds available on site. Although the facility is licensed for a clinical laboratory, the service is not available at the Center. Emergency laboratory studies are performed by the Laboratorio Clinico Santa Lucia, which is staffed by the only community based lab technician that resides on the island. Although pharmaceuticals are available for emergency treatment, there is no on-site pharmacy to dispense medications related to an emergency since 2003. Forty-five percent of patients evaluated are insured by the *MiSalud* program and 55% by commercial insurers and Medicare. The average number of visits per month range from 701 to 1128 patients, depending on the time of the year.

YEAR	Number of Emergency Room Visits
2007	7,930
2008	8,167
2009	8,946
2010	9,359

Eleven-percent (11%) of all patients are transferred by air ambulance to an emergency department off-island. Medicare beneficiaries represent 9% of emergency room visits but account for 21% of emergency air ambulance transfers.⁴⁵ Between May 2008 and April 2011, the average number of patients requiring air ambulance per month was 52 and almost 50% were transferred to the HIMA San Pablo Hospital located in the municipality of Fajardo. The CSFSC medical director notes that the majority of emergency room visits are preventable, such as uncontrolled hypertension, and uncontrolled diabetes mellitus.

⁴⁴ Health Resource Service Administration Maternal Infant and Early Child Health Home Visiting Program <http://mchb.hrsa.gov/programs/homevisiting/index.html>

Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program responds to the diverse needs of children and families in communities at risk/ The program provides an opportunity for collaboration and partnership at the Federal, State, and community levels to improve health and development outcomes for at-risk children through evidence-based home visiting programs. MIECHV was authorized by the Affordable Care Act.

⁴⁵ Susana Centeno CDT statistics

The PRDOH contracts with Vieques Air Link for off-island emergency air transportation. It covers the cost of emergency air transfers from Vieques to the Main Island as well as medications, emergency equipment and supplies, and payroll expenses.

Labor and Delivery

The CSFSC is the only provider of Labor and Delivery services in Vieques. Currently, it has a functioning surgical suite with a twin-post-partum suite and nursery. There is 24-hour coverage of obstetrics, pediatrics, and anesthesiology services. *The medical team accounts for 11 of the 15 physicians at the CSFSC. However, it is only equivalent to 3 full time equivalent (FTE) physicians.* High risk pregnancies are scheduled for delivery on the main island. Obstetrical emergencies are transferred to Ceiba via Vieques Air Link emergency air ambulance.

Radiology

The CSFSC is the only provider of radiology services in Vieques. Radiology services are available from 8am until midnight with radiologic studies digitally transferred to Centro Medico, the only supra-tertiary public facility in Puerto Rico. However, x-rays are not available between midnight and 8am, including for patients seeking emergency care.

Dental Services

The CSFSC has a two-chair dental unit. Dental services are available 120 hours per month.

Dialysis Services

The Dialysis Centro Renal is a four-station hemodialysis unit with a capacity of 24 patients co-located in the CSFSC. Currently, it is at capacity with a census of 24 patients in three shifts, six days per week. For most individuals, chronic kidney failure is a result of hypertension (56%) and diabetes mellitus (35%). In 2009, the PRDOH contracted Fresenius Medical Care, the largest dialysis provider in Puerto Rico, for dialysis services in Vieques. As of the writing of this report, it is in discussion with Fresenius to expand the unit. Generally, a dialysis treatment schedule is comprised of four-hour sessions, three times per week. Although a supervisor is present daily, the unit director and administrator visit twice per month. Similarly, the nutritionist and social worker are on-site only twice a month.

Medicaid Eligibility Office

The Medicaid Eligibility Office is open Monday -Friday from 7am to 4pm for eligibility determination and certification. Residents at the Town Hall meeting on 9/29/11 commented that appointments are taken by phone but a sign-in process at the facility results in long waits. They also stated that inaccurate information about required documentation often resulted in several unnecessary visits.

State Vital Statistics and Epidemiology Offices

The offices are co-located at the Center. An Environmental Health Inspector is available for residents from 7:30am to 9:00pm and the State Insurance Fund provides services Monday through Friday from 8:00 am to 4:00 pm, with a physician and nurse available once a week.

COMMUNITY BASED PRIVATE HEALTH CARE PROFESSIONALS

Private Physician Practices

There are four private practitioners residing on the island of Vieques. Three are generalists and one is a urologist. All are participating providers in the managed care networks of *MiSalud*, *Medicare*

Advantage, and *Medicare Platino*, the plan product designed for dually eligible Medicare and Medicaid beneficiaries.

Behavioral Health Services

The *MiSalud* program offers a behavioral health benefit through a single contract with APS, a managed behavioral health organization (MBHO) for mental health and substance abuse services. While APS offers emergency and crisis line services 24 hours a day/7 days a week, residents and advocates from Servicios de Salud Integral commented that all APS providers are located on the main island and daily travel time limits the amount of hours available in Vieques. Scheduled appointments are often limited to an 11:30am to 3:00pm timeframe. *MiSalud* 2008-2010 claims data illustrates high utilization of mental health services, only exceeded by general practice related services.

In 2010, the Mental Health and Anti-Addiction Services Administration (Spanish acronym ASSMCA) of Puerto Rico proposed a 6-year (Fiscal Years 2010-2015) project to develop and integrate home and community based services and supports for children and youth of 5-17 years of age with serious emotional disturbance and their families through an effective and enduring system of care in the municipalities of Fajardo, Vieques and Culebra, based on a prior successful Child Mental Health Initiative (CMHI) Project.

In 2011, ASSMCA received a **\$1.5 million** grant from the DHHS Substance Abuse and Mental Health Services Administration (SAMHSA) to implement a Child Mental Health Initiative (CMHI) with the following goals:

- 1) Significantly expand the community capacity to serve about 300, overwhelmingly Hispanic low income, children and adolescents with Serious Emotional Disturbances (SED) and families;
- 2) Provide a broad array of accessible clinically effective and fiscally-accountable services, treatments and supports through a collaborative network of service entities, family and community groups;
- 3) Serve as a catalyst for broad-based, sustainable systemic change and infrastructure development under a governing body with ample stakeholder participation;
- 4) Create a care management team with an individualized service plan for each child based on a comprehensive diagnosis of SED based on DSM-IV criteria;
- 5) Deliver culturally and linguistically competent services with special emphasis on ethnic and regional diversity for the underrepresented and underserved populations;
- 6) Achieve full participation of the families and youth in service planning, and the development, evaluation and sustainability of local services and supports in overall system transformation activities.

Home Care and Hospice

Home care and hospice services are provided by one agency with a Certificate of Need for geographic coverage in Vieques, although its nurses reside in Vieques. During the all-provider meeting on 9/28/2011, the home care agency raised concerns about delays in *MiSalud* and Medicare Advantage

pre-authorization processes resulting in delays in care and treatment. Between November 2010 and June 2011, infections were the most frequent diagnosis associated with home care services, illustrating the potential harm associated with delays in approval of services by managed care plans. The agency also discussed the low utilization of hospice services, noting that only 5-6 patients have been enrolled in hospice care during the past six years. It considers this trend a function of limited understanding of the hospice program and benefit by providers.

Pharmacy

Farmacia de San Antonio is the only community pharmacy. As such, client volume creates significant challenges for those obtaining services, especially persons with physical challenges and/or disabilities. It dispenses medications prescribed by all clinicians on-island and specialists located on the main island. Waiting time is described anywhere between one-hour and several days, and there is no system to triage customers and address urgently needed prescription medications. Frequently, specialty medications are not in stock resulting in significant delays that potentially can further complicate clinical conditions. To aggravate the problem, the pharmacy is closed on Sundays, although local stakeholders noted that the pharmacist provides emergency medications when absolutely necessary and is on the island. As such, residents and health professionals argue that there is an urgent need for a pharmacy at the CSFSC.

Laboratory Services

Laboratory services for the CSFSC are provided by two entities, Laboratorio Clinico Santa Lucia and Laboratorio Clinico del Este. A large commercial laboratory is used for specialty and complex studies. Emergency laboratory tests are provided by the only laboratory technician who resides on the island and on-call 24 hours a day, 7 days a week.

Other publicly financed service: Emergency Transportation

There are three Level 1 ambulances. However, one or more are out-of-service at any given time, posing a significant risk to the residents of Vieques. Ambulances are owned and operated by the municipality and are located in the town of Isabella II.

Other publicly financed service: Non-emergency Transportation

TransCita is a new service that offers transportation to-and-from medical appointments, dialysis, and post emergency room evaluation, among others.

BARRIERS TO COMPREHENSIVE PRIMARY CARE

Off-Island Essential Services: Specialty Care

All medical specialty services must be obtained on the main island, regardless of insurance type.

All specialists are located on the eastern part of the Main Island and metropolitan area. As such, access to specialty care, diagnostic studies, and complex treatment and services, such as cancer chemotherapy and radiation therapy, is wholly dependent on the personal financial resources and support systems of individual patients. Higher rates of morbidity and mortality for certain chronic conditions are attributed to this long standing arrangement for specialty care by private insurance companies and the PRDOH.

Dr. Nayda Figueroa⁴⁶, Director of the Puerto Rico Cancer Registry noted that higher morbidity and mortality rates were expected since many cancer patients found it unfeasible to maintain an off-island daily or weekly schedule for chemotherapy and radiation therapy. The mayor argued that routine care can quickly become catastrophic care because travel costs and challenges become overwhelming without access to specialty care. During our all-provider meeting on 9/28/11, physicians identified it as a powerful barrier to the prevention of chronic disease complications such as amputations, vision loss, and kidney disease in diabetic patients and hypertensive heart disease and kidney disease in individuals with hypertension. Their recommendations included weekly to monthly scheduled *on-island* specialty clinics, not only to eliminate the transportation and cost barrier -- but also to promote the co-management and coordination of chronic diseases. High priority specialties include Cardiology, Pulmonary, Endocrinology, Dermatology, Nephrology, and Neurology. Since the median age in Vieques is 40 years and almost one-quarter of the population is aged 60 and older, the demand for specialty care will continue to become more acute. There was also unanimous concern about needless delays in care and treatment caused by lengthy managed care plan pre-authorization processes. Examples included delays in authorization for home care services for stroke related rehabilitation, antibiotic infusion therapy, cancer chemotherapy, and medications for chronic kidney failure such as Epogen and Procrit.

Off-Island Essential Services: Comprehensive Well-Women Preventive Care

- *In 2009, adolescents accounted for 26.4% of births in Vieques compared to 18% on the main island.*
- *During 2009, women of Vieques had a Low Birth Weight (LBW) rate 21% higher than the women on the main island. Adolescents are at high risk for LBW infants.*
- *Infant mortality (IM or deaths) in Vieques is almost twice as high as on the main island.*

Selected 2009 Primary Care Indicators	Vieques	Main Island Average	Comments
% of Births with Adequate Prenatal Care	72.2%	76.5%	2007 Maternal Child Health Program
% Birth to Teenage Women	26.4%	18.1%	Preliminary Data 2009
% of Low Birth Weight	16.0%	12.4%	
Infant Mortality Rate	13.9	7.2	

⁴⁶ Dr. Nayda Figueroa passed away unexpectedly during the writing of this report. She was instrumental in articulating the negative impact of off-island specialty care, especially as it relates to cancer requiring daily or weekly treatments.

Women often seek care from obstetrician-gynecologists, especially during their reproductive years. Generally, it includes access to routine counseling on risk factors and lifestyle issues identified through the medical and social history and physical exam that may place them at risk for illness or injury. Comprehensive well-women preventive care includes screening for sexually transmitted disease and malignancies; contraceptive education; and counseling on methods and services to avoid unintended pregnancies and space pregnancies to promote optimal birth outcomes.

In Puerto Rico, as well as Vieques, health education and preventive services for women is limited to services offered by the State Maternal Child Health Bureau, funded by the Title V Maternal Child Health Program (MCH) home visiting program. It can also be provided by the primary care professional. The MCH program staff offer counseling on contraceptive methods *by referral only*. Birth control methods offered by the program are limited to oral contraceptives and Depoprovera. Women must then travel to the PRDOH contracted pharmacy located in the municipality of Luquillo, to obtain them. Travel to the Luquillo pharmacy involves a ferry from Vieques to Fajardo followed by a bus to Luquillo, which adds an additional cost and 35-45 minutes travel time. The total travel time can exceed four hours.

The CSFSC offers daily scheduled appointments and walk-in clinics for gynecologic and prenatal care. However, there is limited contraceptive use counseling on topics related to barrier methods, combination hormonal contraceptives, and availability of male condoms at low cost for women of childbearing age. The Title X Family Planning clinic located in Fajardo is the nearest federally funded program and requires travel by ferry and car.

Infant mortality (IM) is associated with low birth weight and lack of prenatal care, especially early and adequate care. Puerto Rican women have the highest rates of IM of all Latinas in the U.S. Their rates are 1.4 times that of non-Hispanic Whites. Though the leading cause of IM in the US is congenital anomalies followed by Low Birth Weight (LBW), for Puerto Rican women LBW is the leading cause followed very closely by congenital anomalies.^{47,48}

Off-Island Essential Services: Ophthalmology

In Vieques, there is only one optometrist for over 9,000 patients. With the high percentage of cardiovascular disease and diabetes in the population, consistent ophthalmic care is the standard of practice for those conditions. An annual dilated eye examination is the current recommendation for those with diagnosed hypertension and diabetes by the National Institute of Health Eye Institute. Additionally, there is a high rate of glaucoma and cataracts within the Puerto Rican population highlighting the need for ophthalmic services. Considering the older age of the general population, access to an optometrist is needed for maintaining optimal health.

Off-Island Essential Services: Psychiatry

About 97% of behavioral health services are obtained on Vieques. However, all psychiatric emergencies, with the exception of suicide attempts, are evaluated and managed by the generalists in the CSFSC emergency room. *MiSalud* mental health claims data illustrates that there were more than 2000 and 1500 claims respectively, for services provided by “multispecialty clinic” or “group practices” but less than five claims for services from a psychiatrist for 2009 and 2010. Mental health is considered a priority service for the community and the mayor. She noted that 90% of homeless individuals are younger than 45 years of age and most lack behavioral health care.

⁴⁷ National Center for Health Statistics. Birth Data 2009. http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_01.pdf

⁴⁸ United States Department of Health and Human Services Office of Minority Health. Hispanic Profiles <http://minorityhealth.hhs.gov/templates/browse.aspx?lvl=2&lvlID=54>

Off –Island Essential Services: Emergency Medicine

Emergency services are provided by generalists employed by the PRDOH administered CSFSC. The average number of visits per month range from 701 to 1128 patients, depending on the time of the year. Its medical director notes that the majority of emergency room visits are preventable, such as uncontrolled hypertension, diabetes mellitus and asthma. The underlying reason for this observation may be lack of patient self-management education and counseling, less than optimal management of the disease, or factors unrelated to care and treatment. An Emergency Medicine physician may decrease the number air ambulance transfers and reduce morbidity and mortality associated with treatment delays for conditions like acute myocardial infarction and stroke.

Ten most common emergency room-related diagnoses in 2010⁴⁹:

1. Respiratory tract infections
2. Trauma
3. Asthma
4. Gastroenteritis
5. Musculo-skeletal pain
6. Viral syndromes
7. Uncontrolled hypertension
8. Abdominal pain
9. Gastric reflux
10. Anxiety

Ten most common conditions requiring emergency transport to a hospital off-island⁵⁰

1. Trauma and Fractures
2. Labor and delivery
3. Abdominal pain
4. Severe anemia
5. Cellulitis
6. Stroke/Cerebrovascular accident in evolution
7. Acute congestive heart failure
8. Bronchopneumonia
9. Chest pain
10. Sepsis

⁴⁹ Susana Centeno CDT statistics

⁵⁰ Eleven percent of patients evaluated in the emergency room are referred to emergency departments off island

PRIMARY CARE INDICATORS

Mortality and Morbidity Trends: Leading Causes of Death 2000 through 2009 Period

Leading Causes of Deaths in Vieques compared to Puerto Rico, 2000-2004⁵¹

Cause of Death	Mortality ¹ Vieques	Mortality ¹ Puerto Rico	RR ² (IC 95%) Vieques vs. PR
Cancer	143.5	117.7	1.22 (0.97-1.52)
Heart Disease	138	128.1	1.08 (0.86-1.34)
Diabetes Mellitus	57.2	60.3	0.94 (0.66-1.33)
Human Immunodeficiency Virus	45.4	15.7	2.90 (1.75-4.48)
Accidents and adverse effects	34.3	28.7	1.19 (0.66-1.97)
Hypertension	32.7	29.7	1.10 (0.67-1.73)

¹ Rates for 100,000 adjusted by age to the population of PR in 2000 (Direct method)

² RR (Relative Risk) indicates the rate between Vieques and Puerto Rico of the mortality adjusted by age for the population of PR of 200 between Vieques and Puerto Rico.

The *Centro Comprensivo de Cancer, Incidencia y Mortalidad de Cancer en Vieques 1990-2004* states: “During the period of 2000-2004 an average of 88 deaths per year for all causes were reported in the island-municipality of Vieques, varying annually between 72 and 100 deaths. During this period, the main cause of death was cancer (143.5 per 100,000), while in the second and third place were heart diseases (138 per 100,000) and Diabetes Mellitus (57.2 per 100,000) (Table 1). Throughout the period of the study (2000-2004) an increase of 33.3% in the deaths due to cancer were observed, a decrease of 30.4% in the deaths from heart disease, and an increase of 20% in the deaths from Diabetes Mellitus. In 2004, 16 deaths from cancer were reported in Vieques, 17 deaths from heart disease, and 8 deaths from Diabetes Mellitus. The deaths caused by the three principal causes constitute 41.8% of all deaths that occurred in Vieques in 2004.”^[24]

2006-2008 Six Leading Causes of Mortality in Vieques and the Main Island of Puerto Rico

2006-2008 Major Causes of Mortality	
Vieques	Main Island
Heart Disease	Heart Disease
Cancer	Cancer
Alzheimer’s Disease	Diabetes Mellitus
Pneumonia and Influenza	Alzheimer’s Disease
Cerebrovascular Disease	Cerebrovascular Disease
Diabetes Mellitus	Chronic Lower Respiratory disease

According to the Office of Vital Statistics of the Puerto Rico Department of Health, an average of 85 people died per year in Vieques between 2006 and 2008, for a mortality rate of 9.2 per 1,000 inhabitants. Between 2006 and 2008, the main cause of death in Vieques was heart disease accounting for 26.2% of total deaths and an average mortality rate of 241.6 per 100,000 inhabitants. This was followed by malignant neoplasm (cancer) with 18.8% of the total deaths and an average mortality rate of 173.1 per 100,000 inhabitants. The third cause of death in Vieques was Alzheimer disease, with an average mortality rate of 64.9 per 100,000 inhabitants. The fourth leading cause was Pneumonia and

^[24] Incidencia y Mortalidad de Cancer en Vieques 1990-2004, Nayda r. Figueroa, MD, MPH, Director, Centro Comprensivo de Cancer, University of Puerto Rico

Influenza, Diabetes mellitus (61.3 per 100,000) was followed by cerebrovascular diseases (54.1 per 100,000) as the sixth leading cause of death.

CANCER

The Puerto Rico mortality data is compliant with CDC National Health Statistics standards. Starting in 1997, the registry received funding from the Centers for Disease Control and Prevention (CDC) through a cooperative agreement via the National Cancer Registries. It is the oldest disease registry in Puerto Rico. In November 1997, the Puerto Rico Central Cancer Registry released *Incidence of Cancer in Vieques* for the period 1960 to 1989. For greater precision in estimating the incidence, cases were grouped into five-year periods, without using the cancer primary site or sex, and ages were also grouped into five-year periods. The registry found 482 cases of cancer, and during the 1980s, the incidence of cancer in Vieques was greater than in the mainland. In addition, it found a higher incidence of cancer rates (23.8%) during the 1985-1989 period. Agency for Toxic Substances and Disease Registry (ATSDR) recommended further study and the 1990-1994 period was assessed.

In 1997, the Cancer Registry updated the results of the epidemiologic descriptive study of the incidence of cancer in Vieques for the 1960-1994 period. The study notes that of the 609 cancer cases were characterized as follows and includes additional trend information about individual cancer types for each 5-year period:

Vieques Cancer Rates 1960-1994

SEX	1960-1994 CANCER PRIMARY SITE		
MEN	PROSTATE (22.6%)	ORAL-PHARYNGEAL (14.1%)	LUNG (8.5%)
WOMEN	BREAST (20.9%)	UTERINE (20.5%)	COLON (7.85%)

By 2003, a CDC review concluded that 95.3% of all cancer cases diagnosed and treated in hospital facilities in Puerto Rico were appropriately reported to the registry.⁵² In October 2004, the PRDOH asked the Registry to revise all of the existing documentation related to cancer cases in Vieques reported since 1950. In 2006, the PRDOH asked the Registry to perform a comparative analysis of the incidence and mortality from cancer between Puerto Rico and Vieques:

- The 2006 report evaluated cancer incidence and mortality from cancer from 1990-2001
- The 2009 report evaluated cancer incidence and mortality from cancer from 1990-2004

⁵² ATSDR 2011 Evaluation, p.100

Table 4-2. Summary of Statistically Significant Standardized Incidence Ratios for Cancer⁵³

<i>Outcome</i>	<i>Period</i>	<i>Group</i>	<i>SIR, 95% CI</i>
All cancers	1990 - 1995	Men and Women together	1.19 (1.02, 1.39)
Lung and bronchus	1990 - 1995	Men and Women together	2.25 (1.35, 3.52)
Lung and bronchus	1990 - 1995	Men	2.24 (1.19, 3.83)
Prostate	1990 - 1995	Men	1.47 (1.03, 2.03)
All cancers	1995 - 1999	Men and Women together	1.26 (1.08, 1.47)
All cancers	1995 - 1999	Men	1.31 (1.07, 1.60)
Prostate	1995 - 1999	Men	1.53 (1.09, 2.09)

Source: ATSDR December 2011 Evaluation p.106

Table 4-3. Summary of Statistically Significant Standardized Mortality Ratios for Cancer⁵⁴

<i>Outcome</i>	<i>Period</i>	<i>Group</i>	<i>SMR, 95% CI</i>
All cancers	1990 - 1995	Men and Women together	1.26 (1.01, 1.57)
All cancers	1990 - 1995	Women	1.43 (1.01, 1.96)
Breast	1990 - 1995	Women	0.26 (0.03, 0.92)
Colorectal	1990 - 1994	Women	2.75 (1.11, 5.67)
Oral Cavity and Pharynx	1990 - 1995	Men	3.96 (1.08, 10.0)
All cancers	1995 - 1999	Men and Women together	1.35 (1.08, 1.67)
All cancers	2000 - 2004	Men	1.40 (1.07, 1.80)
Prostate	2000 - 2004	Men	2.62 (1.66, 3.93)

In April 2012, under the direction of Dr. Nayda Figueroa, the Cancer Registry issued a preliminary report titled *Cancer Incidence and Mortality Rates 2004-2009, Preliminary Report Comparing the Municipality of Vieques and Puerto Rico*. The *incidence data* includes the period of 2005-2009 and the *mortality data* includes the period of 2004-2008. Its preliminary conclusions are that cancer rates were lower in Vieques than in the main island, but mortality rates were higher in Vieques than on the main island. It notes that due to the very small number of new cases and deaths per year in Vieques, the data has less precision.

Since 2000, mortality rates for the leading causes of death, including cancer, are significantly higher when compared to mortality rates on the main island. In a September 14, 2011 conference call with the Workgroup, Dr. Nayda Figueroa, an oncologist and principal author of the reports noted that mortality rates for all conditions in Vieques can be decreased if the following recommendations are implemented:

⁵³ **The Standardized Incidence Ratio (SIR)**

A Standardized Incidence Ratio (SIR) is used to determine if the occurrence of cancer in a relatively small population is high or low. An SIR analysis can tell us if the number of observed cancer cases in a particular geographic area is higher or lower than expected, given the population and age distribution for that community.

The SIR is obtained by dividing the observed number of cases of cancer by the “expected” number of cases. The expected number is the number of cases that would occur in a community if the disease rate in a larger reference population (usually the state or country) occurred in that community. Since cancer rates increase strongly with age, the SIR takes into account whether a community’s population is older or younger than the reference population.

How an SIR Is Calculated

The expected number is calculated by multiplying each age-specific cancer incidence rate of the reference population by each age-specific population of the community in question and then adding up the results. If the observed number of cancer cases equals the expected number, the SIR is 1. If more cases are observed than expected, the SIR is greater than 1. If fewer cases are observed than expected, the SIR is less than 1.

Source: http://www.state.nj.us/health/eohs/passaic/pompton_lakes/pompton_lakes_fs_sir.pdf

⁵⁴ **Standardized Mortality Ratio (SMR)**

Standardized Mortality Ratio (SMR) is a ratio between the observed number of deaths in an study population and the number of deaths would be expected, based on the age- and sex-specific rates in a standard population and the age and sex distribution of the study population. If the ratio of observed: expected deaths is greater than 1.0, there is said to be “excess deaths” in the study population.

Source: http://ibis.health.state.nm.us/resources/SMR_ISR.html

Improve early diagnosis through the use of preventive services screening tests

- Improved basic services in Vieques, including screening for common medical conditions
- Improve transportation services to the main island
- Provide support services (aides, if family is not available) to accompany patients to appointments

Establish an on-island clinical team for the most common diseases

- Cancer care requires an interdisciplinary team and should include an internal medicine specialist, surgeon, biopsy equipment and supplies, basic laboratory services, basic imaging studies using digital imaging transfers

Immediately establish transportation and lodging support for individuals requiring intensive treatment.

- The most effective way to improve access to cancer care for patients would be to provide transportation to the main island and lodging for treatments that often require six to eight weeks of chemotherapy and radiation therapy. Patients require easy access to gynecology, urology, otolaryngology, general surgery and surgical oncologists to address the most common malignancies
- Hope Lodge, a facility owned and administered by the American Cancer Association, was referenced as an excellent family-centered model for children and adults undergoing cancer treatment

Implement a disease registry for all conditions to address the small number of residents on the island of Vieques.

- Consider the residents a cohort to accurately capture health status information for the entire population on the island as well as for those individuals who were born and raised in Vieques but may have left the island. She estimated the cost to be between \$500,000-\$700,000 given that the Cancer Registry budget \$4million for 11,000 to 12,000 cases per year.

Dr. Figueroa described services to residents of the island of El Llero, Canary Islands, which has similar population size and distance from the main island as Vieques. The medical team comprised of Internal Medicine, Family Practice, and General Surgery conduct weekly visits to the island for evaluation and management as well as screenings and biopsies. Certain subspecialty services, such as Cardiology, conduct biweekly visits to evaluate referrals.

MISALUD CLAIMS DATA

MiSalud health care service utilization data provides valuable information about physical and behavioral health services rendered to a significant percentage of the population. ASES provided the Workgroup with physical and behavioral health data reported as diagnostic and procedure codes for 2008, 2009, and 2010. It relies on contracted managed care entities to provide it accurate information. The Workgroup found significant fluctuations in utilization trends from year-to-year for the same diagnosis codes.

The top six most frequently used services in the adult population include General Practice (78%) followed by behavioral health (14%), Cardiology (5.8%), Obstetrical and Gynecologic services (3.4%), emergency care (3.2%) and Internal Medicine (3%). Between 2008 and 2010, the number of services

obtained off-island doubled, increasing from 28% in 2008 to 56% in 2010. Of note, mental health service utilization was almost three fold greater than Cardiology, an off-island specialty critical to the management of three of the six leading causes of death. The majority (97%) of mental health services were obtained in Vieques.

Specialty Service	2008-2010 Utilization (Claims)
General Practice	27,254
Behavioral Health	4,976
Cardiology	2,035
Obstetrics-Gynecology	1,177
Emergency Medicine	1,109
Internal Medicine	1,054

Obstetrical Claims Data:

- In 2010, 34% of births were preterm.
- Although the average rate of C-section was 12.7% over the three year period, there was a increase from 9.5% in 2009 to 16.7% in 2010.
- There is no data on fetal wastage, which can be associated with toxic exposures
- The number of miscarriages dropped from greater than 20 to less than five between 2009 and 2010.
- Birth weight claims data for Low Birth Weight (LBW) And Very Low Birth Weight (VLBW) deliveries show two LBW and one VLBW in 2009 and no LBW or VLBW deliveries in 2010.
- There were no small or large for gestational age deliveries in 2009 and 2010.

Pediatric Claims Data (age 0-17): Ten most common diagnoses for 2008, 2009, and 2010 include:

1. Routine medical exam
2. Infection
3. Acute upper respiratory tract infection
4. Routine child health exam
5. Supervision of normal first pregnancy
6. Fever
7. Anemia (almost all are unspecified)
8. Viral infections
9. Other non-specific viral infections
10. Acute bronchitis

There were fifteen claims for neurodevelopmental related services between 2008 and 2010 and no claims showing evidence of routine blood lead level testing and biomonitoring for mercury levels. Pediatric behavioral health claims increased by 47% between 2008 and 2009 and then decreased by 25% in 2010. Attention deficit disorder with hyperactivity was the most common diagnosis for each year. However; the next most common diagnoses differ each year:

2008	2009	2010
Attention Deficit Disorder With Hyperactivity	Attention Deficit Disorder With Hyperactivity	Attention Deficit Disorder With Hyperactivity
Episodic Mood Disorder	Opposition Defiant Disorder	Depressive Psychosis-Mod
Unknown Cause For Morbidity/Mortality	Unknown Cause for Morbidity/Mortality	Opposition Defiant Disorder
Opoid Dependence	Depressive Psychosis-Mod	Depressive Psychosis-Unspecified
Intermittent Explosive Behavior	Educational Circumstance	Unknown Cause for Morbidity/Mortality

PUBLIC HEALTH RESPONSE TO ENVIRONMENTAL EXPOSURE TO TOXIC SUBSTANCES AND BIOMONITORING RESEARCH

Numerous studies in the past two decades raise questions about the safety of the island's soil, food supply, and water. Hazardous substances associated with ordnance use may include mercury, lead, copper, magnesium, lithium, perchlorate, TNT, napalm, and depleted uranium among others, and may also include a range of chemicals such as PCBs, solvents, and pesticides.

The Workgroup learned that despite the fact that more than a half century of military training with live ordnance took place on the island and that Navy land on the eastern and western parts of the island was added to the Federal Superfund list of the most contaminated hazardous waste sites in 2005⁵⁵, *a health care infrastructure or active public health surveillance is not in place to investigate or address the relationship between resident health conditions and exposure to known pollutants in water, soil, and air.* Furthermore, the Workgroup learned that efforts made by the legislature in 1999, 2000, and 2001 to allocate funds to the University of Puerto Rico Graduate School of Public Health (SPH) for epidemiologic studies on the causes and incidence of cancer in Vieques, were not successfully released.⁵⁶

Agency for Toxic Substances and Disease Registry Review of Biomonitoring Studies

The DHHS Agency for Toxic Substances and Disease Registry (ATSDR) released a public comment draft report entitled *An Evaluation of Environmental, Biological and Health Data from the Island of Vieques, Puerto Rico* on December 8, 2011. Its principal focus is to “review and update environmental data on Vieques air, water, soil, seafood, and locally grown foods.”⁵⁷ However, ATSDR expanded the review to include a description and evaluation of available biomonitoring studies and health outcome data of Vieques residents. The report states “*The public health question addressed in the biomonitoring and health outcome chapters is different. We could not use this data to assess whether bombing-related contaminants that are present in Vieques are causing morbidity or mortality. The purpose of the biomonitoring chapter is to identify whether excessive exposure to metals is occurring in Vieques residents and whether there is a risk of harmful effects from metal body burdens. The purpose of the health outcome chapter is to assess the overall health status of the Vieques population.*”⁵⁸

Chapter 3 of the ATSDR report provides detailed information on all known biomonitoring studies conducted by Puerto Rican clinicians, scientists, and researchers as well as an assessment of their strengths and limitations. In Chapter 4, ATSDR assesses both cancer and non-cancer health outcome data. The Workgroup received and review many of the studies included in the ATSDR report and recommends that readers of this document also review the chapters 3 and 4, as the content represents the spectrum of biomonitoring research conducted to date.

⁵⁵ Extensive amounts of unexploded ordnance and remnants of exploded ordnance have been identified in the range areas of Vieques, and in the surrounding waters. Hazardous substances associated with ordnance use may include mercury, lead, copper, magnesium, lithium, perchlorate, TNT, napalm, and depleted uranium among others. At Camp Garcia, and in the NASD, the hazardous substances present may also include a range of chemicals such as PCBs, solvents, and pesticides.”...” For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at <http://www.atsdr.cdc.gov/toxfaq/index.asp> or by telephone at 1-888-42-ATSDR or 1-888-422-8737.”

<http://www.epa.gov/superfund/sites/npl/nar1719.htm>

⁵⁶ Puerto Rico Legislature: 1999-Joint Resolution No. 568; 2000- Joint Resolution 2140; 2001- Joint Resolution 17

⁵⁷ ATSDR Report p.vii

⁵⁸ Ibid, p. viii

Below is a summary of the human biomonitoring studies included in the ATSDR report (p.60):

Table 3-1. Vieques human biomonitoring studies

Source	Title
Puerto Rico Department of Health	Executive summary of the prevalence study of heavy metals in Vieques, 2006, draft unpublished manuscript
Dr. Carmen Ortiz Roque	Mercury contamination in reproductive age women in a Caribbean island: Vieques. J. Epidemiol Community Health 58:756-757, 2004
Dr. Carmen Ortiz Roque	Heavy metal exposure and disease in the proximity of a military base. Unpublished manuscript, 29 January 2002
Dr. Carmen Colón de Jorge	Innocence battered on Vieques, scientific investigation of toxic metals present in the biological terrain of Vieques children and adults and their effects on nutrient minerals utilizing hair and feces analysis (preliminary report). Unpublished manuscript, no date
Dr. Carlos Rodríguez Sierra	Webcast, October 30, 2009, New look at the opening of the case of Vieques, www.telecoque.net

While ATSDR's findings did not find exposure to levels of heavy metals in individuals to be attributed to military activities, the agency commented that data from biomonitoring studies in Vieques showed elevated levels of some metals in residents' blood, urine, and hair. It recommends public health officials consider a limited and focused human biomonitoring investigation in Vieques with a comparison group from mainland Puerto Rico. If requested, the CDC/ATSDR subject matter experts will provide technical assistance and support to the PRDOH in planning and conducting the investigation. It also recommends that Viequesenses who remain concerned about heavy metal exposure should consult with their health care providers the need for testing and cost.

PRDOH Vieques Biomonitoring Study

Of particular interest is the Vieques biomonitoring study conducted by the PRDOH between May 2004 and March 2006. ATSDR describes it as the most extensive human biomonitoring study conducted to date. However, the study remains an unpublished manuscript. The study findings are as important as the follow-up activities that took place in 2006, as described in the ATSDR report. (See pp.68-83) In response to the heavy metal biomonitoring studies conducted by Puerto Rican clinician researchers and scientists, the PRDOH study would be used to determine the magnitude and scope of the problem, generate hypotheses, and identify areas that warrant intervention from a public health perspective.⁵⁹ Beginning in 2004, the PRDOH conducted a two-phase, 5-year, 500 person epidemiological study of heavy metals in residents' blood, urine, and hair. In the first phase, the PRDOH study conducted interviews and laboratory analysis on (1) arsenic in hair and urine, (2) nickel in hair and urine, (3) cadmium in hair and urine, (4) mercury in blood, (5) lead in blood, (6) aluminum in blood, (7) uranium in urine. The second phase of the investigation involved the collection of samples from Phase I participants whose tests showed metals at toxic levels.⁶⁰

⁵⁹ ATSDR report, p.69

⁶⁰ Ibid, p.A-61

Phase I: Starting May 2004

- The PRDOH collected hair, urine, and blood samples from 500 randomly selected Vieques residents 5 years of age and older who lived in Vieques before 2000.
- Interviews collected information about age, sex, residence history, smoking status, employment, water consumption and use, food preparation and consumption, medicine, hobbies and chemical/solvent use. Information was collected about fish and shellfish consumption 3 days before the sample collection.
- Samples were analyzed for the following:
 - Arsenic, cadmium, and nickel in hair and urine
 - Aluminum, lead, and mercury in blood
 - Uranium in urine
- ATSDR describes the PRDOH manuscript as stating the following:
 - 15 adults had metal body burdens exceeding toxicity levels as identified by Quest laboratories. At an individual level:
 - 10 had toxic levels of aluminum in blood
 - 2 had toxic levels of blood lead
 - 2 had toxic levels of cadmium in the urine
 - 1 had toxic levels of mercury in blood
- PRDOH conclusions:
 - Being an adult between the ages of 20 to 65 was associated with higher aluminum levels in blood.
 - Being an adult over age 61 and working with animals was associated with higher arsenic in urine.
 - Working with petroleum products was associated with higher blood lead levels.
 - Contacting the earth's crust and working with solvents was associated with higher cadmium in urine.
 - Being a female; dying hair; using colorants, pigments, and solvents; and years living in Vieques was associated with higher nickel in hair.

Phase II: December 2005 through March 2006

- The PRDOH conducted follow-up on 15 adults whose metal body burdens exceeded toxicity levels as identified by Quest laboratories. Ten of the fifteen agreed to participate.
- Four residents volunteered for blood tests that were not in Phase 1 of the study.

Main Findings:

- *In over 90% of the population, detectable levels were found of at least one heavy metal.*
- In more than 20% of the study participants, the levels of aluminum in blood, arsenic in urine, or nickel in hair were over the laboratory reference threshold.
- Geometric means for uranium in urine, mercury in blood, lead in blood, aluminum in blood, nickel in hair, and cadmium in urine were significantly higher than the geometric means from the 1999 NHANES survey. But the geometric means for mercury and aluminum in blood reported in the PRDOH manuscript were unreliable because of the high detection limit reported by the laboratory.
- None of the identified geometric means were over the toxicity threshold identified by the reporting laboratory.

- Cigarette use, hair dye use, and seafood consumption were identified as risk factors for levels above the laboratory threshold for arsenic, cadmium, and nickel.
- Fifteen persons (3%) were identified with levels above the toxicity threshold for aluminum in blood (10 persons), lead in blood (2 persons), mercury in blood (1 person), and cadmium in urine (2 persons).
- In the follow-up study on 10 persons with metal body burdens that exceeded toxicity levels, only one person with levels above the toxicity threshold was identified.
- Fewer than 4% of the participants showed elevated metal levels associated with possible development of signs and symptoms related to acute exposure. Among the metals studied, levels of aluminum in blood, nickel in hair, and arsenic in urine were reported with the greatest frequency as over the laboratory detection reference threshold. But the test for arsenic measured total arsenic, which includes nontoxic forms of arsenic from eating seafood (i.e., arsenobetaine and arsenocholine).

(ATSDR describes the PRDOH acknowledgement of limitations in the study, such as the underrepresentation of fishers; exclusion of risk factors such as exposure to explosives, armaments, metal cooking utensils and metal residues in foods.)

PRDOH Biomonitoring Study Follow-up Activities

Study results were shared with community leaders and the CSFSC medical director and talks on signs and symptoms of heavy metal exposure were provided by a University of Puerto Rico toxicologist. In addition, a working group established to develop next steps proposed the following recommendations:

1. People identified with toxic levels of heavy metals

- a. Used CDC recommendations for follow-up testing

2. People with possible acute exposure to heavy metals

- a. PRDOH would develop a protocol for the management of persons with suspected acute poisoning of heavy metals using CDC guidelines as a basis (only apply to lead) and would contain:
 - i. Training to local health care providers
 - ii. Ways to promote additional testing using the Commonwealth's laboratory
 - iii. Use of the Poison Center to provide recommendations for managing acute exposure victims
 - iv. Referral of suspected cases to the Medical Center of Puerto Rico

3. People with possible chronic exposure to heavy metals

- a. The establishment of a *voluntary health registry* for Vieques residents to allow for:
 - i. Systematic documentation of factors related to potential risks
 - ii. Identification of people with early signs and symptoms that may be associated with illness
 - iii. Facilitation of early care and health care access

4. High-risk groups

- a. Children 6 years and younger are more vulnerable to lead exposure. The PRDOH manuscript proposed an initial evaluation of all children six years and younger and the incorporation of evaluations for children 1 and 2 years of age as part of their primary care. The report stated that an epidemiologist would be appointed to work

towards establishing the program, which would follow CDC guidelines for case management.

The Workgroup found the proposed actions for population groups exposed or at risk of exposure to heavy metals to be constructive, proactive, responsive, and relevant. They include the active involvement of the PRDOH in the clinical management and testing of individuals with heavy metal exposure; health care provider training in the recognition of heavy metal exposure; the establishment of a voluntary health registry; the integration of heavy metal screening and evaluation in primary care for children up to age six; and the appointment of an epidemiologist to implement the recommendations.

PRESIDENT'S TASK FORCE RECOMMENDATION: FEASIBILITY OF A SECTION 330 HEALTH CENTER PROGRAM IN VIEQUES

HHS and Puerto Rico should explore the feasibility of a Section 330 Health Center application and if a viable option, the PRDOH should support this effort and work with the Vieques community to develop a strong application. It also recommends that HHS explore funding for health centers under the Health Center Program established by Section 330 of the Public Health Service Act, specifically opportunities made available by the Affordable Care Act.

Residents of Vieques would benefit greatly from the conversion of the Centro de Salud Familiar Susana Centeno (CSFSC) to a Health Center Program Grantee (HCPG), previously known as a Federally Qualified Health Center, or to a satellite of a currently funded HCPG. The Community Health Center Program is administered by the Health Resources and Services Administration (HRSA) and provides care to vulnerable populations by assuring access to comprehensive, culturally competent, quality primary healthcare services. In 2011, 20.2 million patients were served through the health center program, 62 percent are racial/ethnic minorities, and 72 percent are below the federal poverty level.⁶¹

Based on the needs assessment site visit conducted in September 2011, the HHS Region II Vieques Work Group established that the Centro de Salud Familiar Susana Centeno (CSFSC) provides limited ambulatory services and limited emergency care. Furthermore, the staffing pattern and organization of services do not appear to foster *comprehensive coordinated primary care* for children, adolescents, adults, and persons with special needs. A comprehensive primary care model, with an emphasis on health maintenance, disease prevention, and coordinated care utilizing care management, patient self-management care education and support services is consistent with current HHS strategic priorities and current care model funding priorities.

While the CSFSC would have to undergo a comprehensive *redesign* in service delivery and coordination of care in order to build a comprehensive primary care model, it would greatly support the expansion of services needed to build such a model and would lay the foundation for receiving patient centered medical home recognition. Furthermore, the model supports the six aims for building a 21st century health care system: health care that is safe, effective, patient centered, timely, efficient, and equitable.⁶²

Option for Conversion to a Health Center Program Grantee (HCPG)

Health Center Program (HCP) grantees are organizations that receive grants under the Health Center Program, as authorized under section 330 of the Public Health Service Act, as amended. They are also commonly known as Federally Qualified Health Centers (FQHCs), “federally-funded health centers” or “HRSA-funded health centers”.⁶³ The Bureau of Primary Health Care (BPHC) within the Health Resources and Services Administration (HRSA) administers the HCP and provides ongoing oversight of both HCP grantees and *look-alikes*. Almost every municipality in Puerto Rico has either a HCP or a Diagnostic and

⁶¹ A Nation Free of Disparities in Health and Health Care p. 40

⁶² HRSA Primary Care Health Center Programs. <http://bphc.hrsa.gov/>

⁶³ Health Center Program Terminology Tip Sheet

Treatment Center (Spanish acronym CDT).⁶⁴ HCP services would have to be available to all persons living in Vieques, on a sliding fee scale^{65,66} and would have to have a board composition of 51 percent of health center users.

Becoming an HCPG would enable the CSFSC to:

- Receive up to \$650,000 in New Start funding
- Be eligible to be deemed for the Federal Tort Claims Act 63, a form of malpractice coverage.
- Be eligible to apply as a National Health Service Corps (NHSC) approved site and benefit from access to health care professionals participating in the NHSC Loan Repayment, Scholarship, and Student to Service programs.
- Be eligible for Capital Development funds if additional grants become available⁶⁷
- Be eligible to purchase of discounted drugs under the section 340B Federal Drug Pricing Program;
- Be eligible for cost-based reimbursement for services provided under Medicare;
- Be eligible for reimbursement under the Prospective Payment System (PPS) or other State-approved Alternative Payment Methodology (APM) for services provided under Medicaid,

DESIGNATION REQUIREMENTS

Vieques has unique challenges unlike those of most municipalities: its relative isolation and the unique health care service needs related to protracted environmental contamination. These challenges would further support its designation as a medically underserved area or medically underserved population. In order to be eligible to apply for a Health Center Program grant or Look-Alike designation, Vieques must meet the designation requirements of serving either a Medically Underserved Area (MUA) or a Medically Underserved Population (MUP).

The Health Professional Shortage Area (HPSA) designation is dependent on similar information gathered for the Medically Underserved Area which Vieques has had since 1978. During the preparation of this report, the Vieques Work Group met with HRSA's Bureau of Clinician Recruitment and Service Office of Designation and facilitated communication between it and the Puerto Rico Primary Care Office (PRPCO), since the Vieques primary care HPSA designation was inactivated in 2005.

The Vieques Workgroup facilitated the provision of technical assistance to the Puerto Rico Primary Care Office (PRPCO) from the HRSA Bureau of Clinician Recruitment and Service, Office of Shortage Designation in February 2012. Vieques was designated a primary care HPSA in February 2012 with a score of 24, indicating the greatest level of need for health professionals. The PRPCO also applied for dental health and mental health HPSA designation and both were designated in March and May 2012 with

⁶⁴ Asociación de Salud Primaria de Puerto Rico Inc. <http://saludprimariapr.org/es/?p=52>

⁶⁵ Health Resource Service Administration Primary Care. <http://bphc.hrsa.gov/>

⁶⁶ **Electronic Federal Codes: Title 42: Public Health PART 51c—GRANTS FOR COMMUNITY HEALTH SERVICES**
<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=321ed7fdd7b481dfb7547bcb3da20b7d&rgn=div5&view=text&node=42:1.0.1.4.26&idno=4>

⁶⁷ Funds made available by the Affordable Care Act support health center efforts to expand their capacity to provide primary and preventive health services to medically underserved populations in underserved communities over the next 2 years. Capital Development (CD) grants are one-time awards. Although there is no funding available right now, if funding were to become available and there was a HCPG on Vieques they would be eligible to apply. <http://bphc.hrsa.gov/policiesregulations/capitaldevelopment.html>

scores of 17 and 18 respectively. (Scores range from 0 - 25 for primary care and mental health and 0-26 for dental)
68 69

NEW ACCESS POINT FUNDING

The Task Force asked HHS to determine whether Vieques could benefit specifically from grant funding for *new* community health centers made available by the Affordable Care Act. At the date of this report, there is no funding available for New Access Point competition to increase preventive and primary care services for eligible entities. HRSA awarded \$28.8 million for 67 health center grants across the country in August 2011. In June 2012, an additional \$128.6 million was awarded to 219 additional health centers. Should a new appropriation become available, a request for competition will be announced.⁷⁰

Option for Conversion to a HCPG Satellite

In lieu of applying for new Health Center Program funding, the PRDOH has a couple of options available:

1. The CSFSC may become a satellite of a currently funded HCPG, as appropriate.
2. The PRDOH can choose to maintain some of their current services, such as emergency care, while the remaining services become a satellite of a HCPG.

Currently, there are 52 HCPG sites located in 38 of the 78 Puerto Rico municipalities⁷¹ that can potentially partner with the CSFSC. Such an arrangement requires approval from the HRSA Bureau of Primary Health Care for a change in *scope of services* in order to establish a satellite clinic that would offer services to all residents of Vieques *without* additional federal funding.

There are several benefits to this option:

- The reduction in start-up costs associated with establishing a new FQHC
- The CSFSC could rapidly fill clinical service gaps, such as internal medicine
- The CSFSC would be positioned to share best practices and benefit from technical assistance provided by HRSA

⁶⁸ <http://bhpr.hrsa.gov/shortage/muaps/index.html>

Obtaining an MUA involves application of the Index of Medical Underservice (IMU) to data on a service area to obtain a score for the area. The IMU scale is from 0 to 100, where 0 represents completely underserved and 100 represents best served or least underserved areas. Under the established criteria, each service area found to have an IMU of 62.0 or less qualifies for designation as an MUA. The IMU involves four variables (1) Ratio of primary medical care physicians per 1,000 population; (2) Infant mortality rate; (3) Percentage of the population with incomes below the poverty level (Vieques has the highest poverty rate in Puerto Rico); (4) Percentage of the population age 65 or over.

The value of each of these variables for the service area is converted to a weighted value, according to established criteria. The four values are summed to obtain the area's IMU score. As such, consideration should be given to the following exception:

“Under the provisions of Public law 99-280, enacted in 1986, a population group which does not meet the established criteria of an IMU less than 62.0 can nevertheless be considered for designation if “unusual local conditions which are a barrier to access to or the availability of personal health services” exist and are documented, and if such a designation is recommended by the chief executive officer and local officials of the State where the requested population resides. Requests for designation under these exceptional procedures should describe in detail the unusual local conditions/access barriers/availability indicators which led to the recommendation for exceptional designation and include any supporting data. Such requests must also include a written recommendation for designation from the Governor or other chief executive officer of the State (or State-equivalent) and local health official.”

⁶⁹ HPSA designation dates can be found at <http://hpsafind.hrsa.gov/HPSASearch.aspx>

⁷⁰ HHS Awards Affordable Care Act Funds to Expand Access to Health Care <http://www.hhs.gov/news/press/2011pres/08/20110809a.html>

⁷¹ See web site of the Asociación de Salud Primaria de Puerto Rico Inc. for all municipalities where FQHC's are located and their addresses <http://saludprimariapr.org/es/list-of-members/>

- The CSFSC would be better able to provide professional support to staff who may be experiencing isolation because of lack of engagement with peers and create more a more fertile environment for its *transition to a comprehensive primary care model*⁷²

As of the writing of this report, there is a HRSA funded Community Health Center Satellite Clinic in Culebra. The PRDOH has an arrangement with a HRSA funded program grantee for the administration of Emergency Services. Culebra has similar geographic and population characteristics.

Option for Health Center Program Look-Alike (LA) Designation

The *Health Center Program Look-Alike (LA)* is a health center that has been certified by the Centers for Medicare and Medicaid Services (CMS), based on recommendations provided by HRSA/BPHC, as operational, not owned, controlled or operated by another entity, and as meeting all Health Center Program (HCP) requirements. Although there is no Look-Alike (LA) in Puerto Rico, the PRDOH may want to consider this option as a step towards obtaining full status.

A LA does not receive federal funding under the HCP. Instead, organizations are expected to make services available to all residents of the *service area*, to the extent possible, using its own available resources. However, they are eligible to receive a number of benefits similar to an HCPG, to support activities included in the approved *scope of project*, including:

- Purchase of discounted drugs under the section 340B Federal Drug Pricing Program;
- Cost-based reimbursement for services provided under Medicare;
- Reimbursement under the Prospective Payment System (PPS) or other State-approved Alternative Payment Methodology (APM) for services provided under Medicaid, *and*
- Access to National Health Service Corps providers.

⁷² The FQHC Advanced primary Care Practice Demonstration (FQHC APCP) is a CMS Demonstration designed to evaluate the effect of the advanced primary care practice model, commonly referred to as the patient-centered medical home, in improving care, promoting health, and reducing the cost of care provided to Medicare beneficiaries served by FQHCs.

Health Center Program Scope of Services Criteria

Scope of Services Criteria	Health Care Program	Centro de Salud Familiar Susana Centeno
Primary Health Care Services	Required	Would require an organizational and service redesign to establish a comprehensive primary care model.
Primary Care for All Life-cycle Ages	Required on-site or under formal arrangement	Currently has providers for all age groups and offers certain services for women and children, i.e., WIC, MCH, Would need to develop a comprehensive primary care model for all life-cycle ages.
Diagnostic Lab	Required on-site or under formal arrangement	Currently has lab services under arrangement with Laboratorio Clinico Santa Lucia for limited stat tests and specialty lab studies from Quest Diagnostics of Puerto Rico.
Emergency Services/After Hours Coverage	Required on-site or under formal arrangement	Currently provide 24-hour emergency care staffed by one generalist; with 3 observation beds (18 beds available); a functioning labor and delivery suite with nursery. Complex emergencies require transfer. In 2010, 11% of patients required emergency transfer to the main island. Although Medicare beneficiaries represent 9% of all visits, they account for 21% of patients requiring emergency transfer to the main island.
Radiological Services	Required on-site or under formal arrangement	Basic x-rays are available from 8am to midnight. Digital transfer of radiologic studies is interpreted by radiologists at Centro Medico, the only supratertiary public medical facility in Puerto Rico.
Pharmacy	Required on-site or under formal arrangement	There are limited pharmaceuticals available for the management of emergencies. Currently there is no pharmacy although a license has been issued by SARAFS and the interview process for a pharmacist has begun.
Preventive Health	Required on-site or under formal arrangement	This component of comprehensive primary care is uneven. The center has great success with immunizations for infants, children and adults. However, structure or processes for comprehensive preventive health services are not in place or access is impeded by travel to main island.
Preventive Dental Care	Required on-site or under formal arrangement	There is a two-chair dental unit and services are available daily but for a total of 120 hours per month.
Dental Screening for Children	Required on site or under formal arrangement	This service would have to be developed.
Case Management	Required on site or under formal arrangement	There is one social worker for the entire center. This service needs development.
Transportation	Required by the site or under formal arrangement	<i>TransCita</i> is the non-emergency transportation service for Vieques residents.
Hospital Care	Required by clinic staff or under formal arrangement	HIMA San Pablo Hospital is the <i>MiSalud</i> contracted hospital for CSFSC. It is located in the municipality of Fajardo and in 2010 and 2011 accounted for 85% of hospitalizations and almost 50% of all emergency transfers.

Health Center Program Designation Criteria

Facility Designation Criteria	Federally Qualified Health Center (FQHC)	Susana Centeno Family Health Center
Location	N/A	
Shortage Area	Medically Underserved Area (MUA) or Medically Underserved Population (MUP)	<p>Vieques is designated as “rural” by the Office of Management and Budget (OMB) and the Census Bureau.</p> <p>For purposes of HRSA administered programs, it is designated as rural.</p> <p>For purposes of CMS’ Medicare Survey and Certification criteria, Vieques is a non-MSA locality and is therefore designated as rural.</p> <p>Vieques has had Medically Underserved Area designation since 1978.</p> <p>Vieques was designated as a primary care Health Professions Shortage Area in March 2012, after inactivation in 2005 and as a behavioral health and dental health HPSA in May 2012.</p>
Corporate Structure	Tax Exempt non-profit or Public Agency	Public Agency
Board of Directors	Required	None, as it is a government administered facility
Clinical Staffing	Core staff as necessary to carry out all required services, either directly or by referral. Staff must be appropriately licensed, credentialed, and privileged. QI/QA program must include a clinical director whose focus of responsibility is QI/QA.	See staffing pattern on pages 33-36

PRESIDENT'S TASK FORCE RECOMMENDATION: FEASIBILITY OF A CRITICAL ACCESS HOSPITAL ON VIEQUES

HHS should continue to work with the PRDOH to determine if the Centro De Salud Familiar Susana Centeno facility in Vieques meets the statutory requirements for a Critical Access Hospital (CAH) designation.

In 1997, the Balanced Budget Act established a category of healthcare facility called Critical Access Hospitals (CAHs) in order to preserve access to emergency care in rural areas where the population density is insufficient to financially support a full-service acute care hospital. Provided that certain conditions are met, small rural acute care hospitals may convert their Medicare certification status to become a CAH. There are 1,330 CAHs throughout the US, including in Frontier areas⁷³ as of September 30, 2012.

Under the Medicare fee-for-service program, also known as Traditional Medicare, CAHs are generally paid 101 percent of reasonable cost of services to beneficiaries rather than through a prospectively set payment per case, which is not necessarily the same for all hospitals in the same locality. This protects CAHs from losing money on Medicare services because unlike prospective payment systems, cost reimbursement allows the full Medicare share of fixed cost to be included in the payment, even if it has to be spread over a small number of patients. Congress' intention in establishing CAHs was to prevent existing hospitals from becoming bankrupt and closing, leaving rural communities without access to emergency hospital care. CAHs must have an annual average length of inpatient stay of 96 or fewer hours (4 days) and may have no more than 25 inpatient beds. Patients who require extended inpatient stays are expected to be transferred to acute care hospitals after being stabilized in the CAH. CAHs also may provide outpatient services of the type that is currently being provided by the Centro de Salud Familiar Susana Centeno (CSFSC).

Under current law, the following prerequisites apply to Critical Access Hospitals⁷⁴:

- *A CAH may only be converted from an existing Medicare certified hospital; or from a Medicare certified hospital that ceased operations after 11/29/89; or be a health center (as defined by the state) that previously operated as a Medicare certified hospital before being downsized to a health clinic*
- *The facility:*
 - *Must be located in a state or territory that participates in a Rural Hospital Flexibility Program*
 - *Must be located in a rural area or an area treated as rural*
 - *Must be more than a 35-mile drive from another hospital or CAH, or more than a 15-mile drive in the case of mountainous terrain or an area with only secondary roads available*

⁷³ Frontier areas are the most remote and geographically isolated areas in the United States. Those areas are usually sparsely populated and in addition to extreme weather, they often face extreme distances and travel time to services of any kind. <http://www.frontierus.org/defining.php>

⁷⁴ <http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/critaccesshospfctsh.pdf>

- *Must demonstrate compliance with the Conditions of Participation (CoPs) for Critical Access Hospitals⁷⁵ at the time of application for CAH status*

We have been asked to consider whether the conversion of the CSFSC to CAH status might be a feasible way to improve access to health care services on Vieques. With regard to the statutory requirements:

- Vieques is one of Puerto Rico's 10 rural municipalities.
- The CSFSC has never been certified by the Medicare program as an acute care hospital, therefore it does not meet the conditions for conversion to a CAH.
- The CSFSC is licensed by the state as a hospital with 2 beds; however, it has never been certified by the Medicare program as an acute care hospital, a necessary requirement for conversion to a CAH.
- Puerto Rico has never applied to the Health Resource Services Administration (HRSA) to establish a Rural Hospital Flexibility Program⁷⁶.

Since current law does not grant authority to certify new facilities as CAHs, it would be necessary for Vieques to first establish and operate an acute care hospital before converting it to a CAH. It would be prohibitively expensive for the PRDOH to assemble the necessary resources for Medicare acute care hospital certification in order to downsize to a CAH. In addition, some additional expense would be required to make the physical plant and staffing of the CSFSC compliant with the CAH Conditions of Participation and to maintain ongoing compliance.

There are two overarching questions with regard to the possibility of establishing a CAH on Vieques:

1. *Would a CAH provide the residents Vieques with access to necessary medical services that they do not currently receive?*
2. *Would the cost of converting the CSFSC to meet the Acute Care Hospital Medicare Conditions of Participation in order to become a CAH, and then operating it as a CAH, be compensated by third party insurance reimbursement increases?*

The Centro de Salud Familiar Susana Centeno currently maintains inpatient beds to stabilize critically ill or injured patients; for labor and delivery; and to allow postpartum patients to recover. There is a generalist physician available at all times to provide emergency care. Vieques uses an emergency air ambulance service to take critically ill patients to hospitals on the main island and it is unlikely that the municipality would want to eliminate that option if it had a CAH. Moreover, there are no facility services that are required in a CAH that are not, or could not be provided by the health center. Therefore, a CAH would not appear to automatically provide greater access to care unless additional services were made possible by increased third party reimbursement.

As of September 30, 2012, there are 1,330 CAHs throughout the US serving populations smaller than the current population in Vieques, especially in Frontier communities⁷⁷ While Medicare fee-for-service cost based reimbursement to a CAH would be higher than the payments are to the health center, few of the

⁷⁵ The Conditions of Participation for CAHs are listed in the Code of Federal Regulations 42 CFR 485, Subpart F

⁷⁶ Source: Health Resources and Services Administration Office of Rural Health

⁷⁷ Frontier areas are the most remote and geographically isolated areas in the United States. Those areas are usually sparsely populated and in addition to extreme weather, they often face extreme distances and travel time to services of any kind. <http://www.frontierus.org/defining.php>

CSFSC patients are covered by Traditional Medicare. Currently, Vieques has approximately 1,600 Medicare beneficiaries but only 34.3% are enrolled in Traditional Medicare. The majority (65.7%) are enrolled in the Medicare Advantage Program (MA). These managed care plans negotiate rates with providers and are not required to use *cost reimbursement* to pay CAHs. Similarly, *MiSalud*, which accounts for 40% of the insured in Vieques, and other insurers, negotiate their own rates. Given the environment, there is no assurance that establishment of a CAH would substantially increase reimbursement for any but a small subset of patients.

While it is beyond the scope of our assessment to perform a full CAH feasibility analysis, we did compare the CSFSC budget with the Medicare cost reports for two Critical Access Hospitals located in Florida. Although the Florida CAHs averaged 7 and 13 inpatients per day respectively, considerably more than at the CSFSC, their annual cost was similar to the health center's \$7.4 million budget. Detailed comparisons were not possible because the CSFSC budget is organized differently from the details of expenses shown on CAH cost reports, however, we found that the Florida CAHs reported considerable expenses for therapy and other medical services that the CSFSC may not be incurring. The very limited cost information made available by the PRDOH suggested that an operational review of the non-medical costs of running the health center may identify opportunities for cost reduction that could then be reinvested in medical care.

There have been calls to permit the certification of new facilities as Critical Access Hospitals. Fifteen years after enactment of the Balanced Budget Act, laws may be changed. At some future time, Vieques may be able to consider the feasibility of converting the CSFSC to a CAH.

Steps to Establishing a Critical Access Hospital⁷⁸

The Commonwealth would have to submit notification to CMS about interest in CAH status and apply for participation in the Rural Hospital Flexibility Program. *"The Flex program provides funding to state governments to spur quality and performance improvement activities; stabilize rural hospital finance; and integrate emergency medical services (EMS) into their health care systems"*⁷⁹. The following describes program requirements:

- Eligibility is available to states with CAHs or potential CAHs
- Program requires states to develop rural health plans that improve the efficiency and effectiveness of care in rural areas. Flex funding can be used for:
 1. Needs assessments
 2. Development and implementation of rural health networks
 3. Support for eligible hospitals to become CAHs
 4. Improvements in quality and performance management
 5. Improvements and integration of emergency medical services

⁷⁸ <http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/critaccesshospfctshst.pdf>

⁷⁹ Medicare Rural Hospital Flexibility Program http://www.hrsa.gov/ruralhealth/about/hospitalstate/medicareflexibility_.html

CRITICAL ACCESS HOSPITAL COMPARISON WITH CSFSC

The following charts compare the Critical Access Hospital designation criteria and scope of service criteria with that of the services currently provided by the Susana Centeno Family Health Center.

CAH Facility Designation Criteria

Criteria	Critical Access Hospital (CAH)	Centro de Salud Familiar Susana Centeno
Location	Be located in a rural area or be treated as a rural under a special provision that allows qualified hospital provider in urban areas to be treated as rural for purposes of becoming a CAH	Vieques is designated as “rural” by the Office of Management and Budget (OMB) and the Census Bureau For purposes of HRSA administered programs, it is designated as rural For purposes of CMS’ Medicare Survey and Certification criteria, Vieques is a non-MSA locality and is therefore designated as rural
Shortage Area	Be located more than a 35-mile drive from the nearest hospital or CAH or no more than a 15-mile drive in areas with mountainous terrain or only secondary roads	Located approximately 8 miles east of the main island of Puerto Rico and is separated by 18 miles of ocean between the main island of Puerto Rico
Corporate Structure	Public, non-profit or for profit	Public
Board of Directors	Required (485.627(a)) {requires a governing body or responsible individual}	Administered by the Puerto Rico Department of Health. Would have to be established
Clinical Staffing	CAH has a professional health care staff that includes one or more doctors of medicine or osteopathy, and may include one or more physician assistants, nurse practitioners, or clinical nurse specialists. (485.631(a)(1))	

CAH Scope of Services Criteria

Criteria	Critical Access Hospital (CAH)	Centro de Salud Familiar Susana Centeno
Primary Health Care Services	Required to directly provide diagnostic and therapeutic services found in physician office or other health care delivery system entry point, such as a low intensity hospital outpatient department or emergency department, (485.635(b)(1))	Provides ambulatory care services
Primary Care for All Life-cycle Ages	No regulatory restrictions on age of patients served	Provides ambulatory care services to all age groups
Basic Lab	Required (485.635(b)(2)) as direct services	Currently not available in-house
Emergency Care	Required to provide emergency care to meet the needs of its inpatients and outpatients (485.618)	Currently provides 24 hours/365day per year emergency services
Radiological Services	Required (485.635(b)(3)) as direct services provided by qualified staff	Limited to basic x-rays and only available from 8am-midnight
Pharmacy	Required to have patient care policies addressing storage, handling, dispensing and administration of drugs & biologicals (485.635(a)(3)(iv))	Currently not available in-house
Preventive Health	No	Strong immunization program but significant geographic barriers to preventive screening and services
Emergency Dental	Not specifically required but basic emergency dental care implicit in the emergency care requirement	Not available. Emergency transportation is available for emergency dental services
Dental Screening for Children	Not Required	Dental services but limited to 120 hours per month
Case Management	No	One part- time social worker available
After Hours Care	Required emergency care availability (485.618(a)) and nursing care whenever there is an inpatient (485.631(a)(5))	
Transportation	State must have a rural health network consisting of at least 1 acute care hospital and 1 CAH. (485.603(a)). Since Puerto Rico has no CAHs, the first CAH would have to be in the network. Network CAHs are required to have an agreement with a network hospital for emergency & non-emergency transportation between the CAH and the hospital (485.616(a)(3))	Emergency transportation is available to main island. <i>TransCita</i> is the non-emergency transportation service on Vieques.
Hospital/Specialty Care	Provide acute inpatient care for a period not exceeding, on an annual average basis, 96 hours per patient. Maximum 25 inpatient beds (485.620) Required arrangement with a rural health network acute care hospital for patient referral & transfer (485.616(a)(1))	HIMA San Pablo Hospital is the <i>MiSalud</i> contracted hospital for CSFSC. It is located in the municipality of Fajardo and in 2010 and 2011, accounted for 85% of hospitalizations and almost 50% of all emergency transfers.

RECOMMENDATIONS TO ADDRESS GAPS IN HEALTH CARE SERVICES

Currently, health systems across the country are taking up the challenge to implement a more responsive and person-centered health care system. The following recommendations intend to establish the necessary components of a comprehensive preventive and primary care system that guarantees timely access to primary and specialty care and treatment and fosters holistic, coordinated care for the residents of Vieques.

RECOMMENDATION #1:

Develop comprehensive, preventive primary care for all Viequenses.

To the extent possible, comprehensive primary care activities in Vieques should be aligned with the principles of the medical home/health home model.^{80,81,82} Achieving the model should be the goal of both private practices and the Centro de Salud Familiar Susana Centeno (CSFSC). The most feasible way to achieve this goal is the establishment of a Health Center Program⁸³ site location within the CSFSC, (also referred to as a 330 health center by the President's Task Force). These models support and benefit from the co-location of other Puerto Rico Department of Health (PRDOH) categorical program services.

The Puerto Rico Department of Health (PRDOH) should lead the effort to bring specialty care to the island of Vieques. Barriers to specialty care are well documented in this report and are known to be associated with poor health outcomes and increased morbidity and mortality. The cost of such a service must be weighed against the cost of care for preventable complications of common chronic conditions, including cancer, heart disease, stroke, diabetes mellitus, and respiratory system disorders. It will require an organizational and reimbursement mechanism that supports on-Vieques island specialty medical care, including environmental medicine consultative services *across all insurers*. Financial incentives should compensate for the cost of travel to-and-from Vieques and offset the practice income lost to travel time. In addition, a physical location must be identified and supported to accommodate medical specialists on a routine basis and make available appropriate equipment and supplies for diagnosis and treatment.

The Workgroup strongly recommends that the PRDOH and Government Health Insurance Administration (Spanish acronym ASES) consider alternatives for compensating specialists who travel to Vieques to provide services to *MiSalud* and Medicaid patients. For example, ASES might contract with specialists to make a specific number of trips each year and pay a stipend covering travel expenses and income lost due to travel time. For specialists who encounter less than a full patient load for their specialty because of the island's small population, ASES might establish a minimum total fee per day. Another approach might be to set higher rates for specialty services provided on Vieques and establish a process for physicians to submit travel vouchers.

⁸⁰ American Academy of Pediatrics.National Center for Medical Homes. <http://www.medicalhomeinfo.org/>

⁸¹ American College of Physicians Medical Home Model. http://www.acponline.org/running_practice/pcmh/

⁸² Strickland, B. et al. The Medical Home: Health Care Access and Impact for Children and Youth in the United States. *Pediatrics* 2011;127:604; <http://pediatrics.aappublications.org/content/127/4/604.full.pdf>

⁸³ Health Center Program Grantee (HCPG) is sometimes referred to as a Federally Qualified Health Center.

RECOMMENDATION #2:

Increase clinical management capacity for all age groups by establishing a telemedicine program⁸⁴ available to all Vieques physicians and health care professionals.

Telemedicine is a powerful tool to support co-management of complex medical and behavioral health conditions in all age groups. Primary care physicians on Vieques can benefit from case presentations and consultative services offered by an existing or newly established telemedicine program of an academic medical institution. Selection of an existing telemedicine program should take into consideration the availability of an environmental medicine consultative team at the same institution. Clinicians providing care to residents of Vieques should have the necessary skills and tools to recognize and diagnose conditions and diseases that may be related to exposure to environmental toxins and noise. In addition, periodic in-person consultative services should be arranged. The Veterans Administration Rural Health Clinic, co-located in the Centro de Salud Familiar Susana Centeno, has telehealth capability. It would be beneficial to seek advice on their telehealth arrangement.

RECOMMENDATION #3:

The PRDOH should consider improved transportation to- and- from Vieques to be among the options for improving access to health care for the island's residents.

Health care services are available on-island but travel to-and-from the main island is required for certain essential services. Either way, the current transportation alternatives present a significant barrier. Service on the ferry is inexpensive but unreliable and requires an inordinate investment of time for routine medical visits. Air travel is expensive and entails additional ground travel at both ends of the trip. In evaluating its options for making specialty services more available to Vieques residents, the government of Puerto Rico should consider whether investment in a faster, more reliable passenger-only ferry between Vieques and Fajardo might be more cost effective than bringing some specialty services to Vieques. If such a transportation option is under consideration for other reasons, it would provide additional support to the plan.

RECOMMENDATION #4:

The PRDOH should establish a collaborative of key stakeholders to assess currently available data sources to determine priority health conditions among the Vieques population based on excess rates of disease, illness, and /or risk factors compared to the population of the main island. The collaborative should: (a) identify health conditions that require active surveillance; (b) develop a mechanism to identify community concerns about unique illnesses experienced by Viequesens and case definitions for purposes of data collection; (c) review the PRDOH Biomonitoring Study and associated workgroup recommendations to determine which should be actively pursued; and (d) establish the framework for additional epidemiologic investigational activities consistent with community based participatory research principles.

The PRDOH is uniquely positioned to convene key stakeholders and launch a collaborative to assess readily available data sources illustrating excess rates of certain medical conditions, including leading causes of death, high infant mortality and low birth weight. Potential collaborative partners include the

⁸⁴ IOM The Role of Telehealth in an Evolving Health Care Environment Workshop Summary, November 12, 2012 <http://www.iom.edu/Reports/2012/The-Role-of-Telehealth-in-an-Evolving-Health-Care-Environment.aspx>

Cancer Registry, ASES, the PRDOH Primary Care Office, Centro de Salud Familiar Susana Centeno, the medical community actively engaged in the care of Viequenses; community health care advocates; and the University of Puerto Rico Graduate School of Public Health. Potential data sources include, but are not limited to, vital statistics, Cancer Registry, *MiSalud* claims data, and the Behavioral Risk Factor Surveillance System. The Collaborative may then be better positioned to identify and pursue new areas of epidemiologic research and provide recommendations for how to quickly respond to urgent and emerging health risks to Viequenses by developing appropriate and timely prevention, treatment, care, and support service strategies.

The PRDOH should also consider developing a mechanism for responding to local concerns about conditions or illnesses that may be unique to the Vieques population. The mechanism would capture unique illnesses, develop case definitions, registration of individuals that meet the case definition, and review of the case-series by appropriate medical specialists. In addition, the broad and substantive recommendations that followed the PRDOH Vieques Biomonitoring Study in 2006 should be revisited and pursued⁸⁵. Community based participatory research principles should be integrated into all investigational activities.⁸⁶

RECOMMENDATION #5:

Develop and fund a comprehensive community based health promotion and disease prevention outreach and education for all age groups.

The PRDOH should utilize the Centers for Disease Control and Prevention (CDC) and other agencies as a resource for the training, consultation, capacity building, and technical assistance as it relates to evidence and practice-based community and clinical prevention and wellness strategies, to include a broad cadre of community outreach, education, and patient-navigator workers whose activities center on health promotion and disease prevention across all age groups. Community health workers serve as a bridge between the community and health care services, are cost-effective and have been shown to improve health knowledge in individuals. Their role is critical in bringing health information to people in the community. Education and outreach should include health and resource information on behaviors such as obesity, smoking, and substance use, which are known to lead to common chronic conditions, and behaviors that contribute to the high rate of teenage pregnancy. Secondary prevention should include education on self-management of common chronic diseases. Although these campaigns are often lead by volunteers, this activity should be funded to guarantee consistency and accuracy of educational and resource information.

RECOMMENDATION #6:

Improve Women's Health Services and coordinate efforts to guarantee availability of comprehensive family planning services to adolescents and adults of reproductive age, and actively address the reduction of teenage pregnancy in Vieques.

⁸⁵ See p.49

⁸⁶ Community-based participatory research (CBPR) is an applied collaborative approach that enables community residents to more actively participate in the full spectrum of research (from conception – design – conduct – analysis – interpretation – conclusions – communication of results) with a goal of influencing change in community health, systems, programs or policies. Community members and researchers partner to combine knowledge and action for social change to improve community health and often reduce health disparities. Academic/research and community partners join to develop models and approaches to building communication, trust and capacity, with the final goal of increasing community participation in the research process. It is an orientation to research which equitably involves all partners in the research process and recognizes the unique strengths that each brings.

http://obssr.od.nih.gov/scientific_areas/methodology/community_based_participatory_research/index.aspx

Women's health services are an integral part of comprehensive primary care and merits special attention. In 2009, 26.4% of births occurred among adolescents in Vieques, compared to 18% on the main island. During 2009, women of Vieques had a Low Birth Weight (LBW) rate that was 21% higher than the women on the main island and infant mortality (IM or deaths) is almost twice as high in Vieques as on the main island. The PRDOH should further develop effective reproductive and safe sex educational services to address and prevent the high rates of pregnancy, low birth weight and other adverse pregnancy outcomes and work in collaboration with the University of Puerto Rico, to arrange for the dispensing of contraceptives and barrier methods on Vieques.

RECOMMENDATION #7:

Pursue Health Professional Shortage Area designations for primary medical care, dental and mental health, and National Health Service Corps site approval.

The Workgroup learned that the Vieques Health Professional Shortage Area (HPSA) designation status expired in 2005. The Workgroup requested technical assistance from HRSA's Bureau of Clinician Recruitment and Services Office of Shortage Designation (BCRS/OD)) for the Puerto Rico Primary Care Office (PRPCO). As a result, Vieques received its *Primary Care HPSA* designation in February 2012. As part of this effort, the PRPCO also requested designations for mental health and dental health service HPSAs and received these *HPSA designations* as of March and May 2012 respectively. Having the HPSA designation(s) allows the CSFSC to apply to become a *National Health Service Corps* (NHSC)⁸⁷ *approved site*. NHSC site approval will aid in the recruitment and retention of NHSC providers based on HPSA designation type. For example, upon completion of their education and training, NHSC scholars (physicians, dentists) can pursue employment and placement at CSFSC to fulfill their service requirements. NHSC Student to Service program physicians can also pursue employment at CSFSC. Once employed by CSFSC, the following disciplines may apply for NHSC loan repayment on a competitive basis: physicians, dentists, registered dental hygienists, health service psychologists, licensed clinical social workers, psychiatric nurse specialists, marriage and family therapists, and licensed professional counselors. In addition, HPSA designations permit all Vieques physicians to receive a Medicare bonus payment.

RECOMMENDATION #8:

Priority scheduling for health and human services currently available to residents of Vieques and Culebra under Law No. 194 of 2000 should be monitored for compliance; and a medical-related lodging and travel voucher system should be established.

The Municipality of Vieques, Patient Advocate, and relevant agencies should collaborate to guarantee the enforcement of Law No. 194 of August 25, 2000 which gives medical and social service appointment scheduling priority to residents of Vieques and Culebra, so as to ensure same-day return to both islands. In addition, lodging vouchers for temporary accommodations should be made available to patients and family members of Vieques and Culebra, when health care services, such as emergency care, specialty care, and intensive treatment protocols are necessary and prevent same day return to both islands. This can be coordinated by the Department of Housing and the Department of Family Services, as proposed by the Puerto Rico Senate.⁸⁸

⁸⁷ National Health Service Corps <http://nhsc.hrsa.gov/>

⁸⁸ Propuesta del Senado de Puerto Rico. P. del S. 1774. 24 de Septiembre de 2010. Ley. Para crear la "Ley de Alojamiento Temporero para los Residentes de Vieques y Culebra" con el propósito de implantar un programa de hospedaje temporero a ser coordinado por el Departamento de la Vivienda y el Departamento de la Familia para ofrecer este servicio a los residentes de las islas municipio Vieques y Culebra que deban trasladarse a la Isla Grande para recibir servicios de salud o cuidar de un familiar enfermo; ordenar al Departamento de la Vivienda identificar y

RECOMMENDATION #9:

The PRDOH should require its External Quality Review Organization (EQRO) to conduct an External Quality Review (EQR) of Medicaid services and quality of care specific to the population of Vieques, comparing the results with the remaining population of Puerto Rico. The PRDOH should focus on priority health conditions identified through mechanisms outlined in Recommendation #4 and consider both mandatory and optional EQR activities⁸⁹. Low quality of care indicators related to priority health conditions in Vieques should be targeted, and for rapid improvement, evidence-based interventions pursued for the prevention and control of disease and effective treatment.

Since 2003, CMS regulations require states that contract with Medicaid managed care organizations (MCO) ensure that a qualified External Review Organization (EQRO) conducts an annual *External Quality Review* (EQR) of each managed care entity. The External Quality Review Organization may conduct focused medical record reviews (reviews targeted at a particular clinical condition) or broader analysis on quality. While most EQRO contractors rely on medical records as the primary source of information, they may also use eligibility data and claims/encounter data to conduct specific analyses.⁹⁰ States are to make final reports available to CMS and the public by April of each year.⁹¹

In Puerto Rico, Medicaid eligible residents are enrolled in the Government Health Insurance Program currently known as *MiSalud*, which is comprised of two managed care entities for comprehensive health services and one managed behavioral health organization for behavioral health services (while also functioning as a Prepaid Inpatient Health Plan (PIHP)). In 2011, forty-seven percent of the insured population in Vieques was enrolled in *MiSalud*.⁹²

The PRDOH should work with its External Quality Review Organization (EQRO) to compare the quality of care of *MiSalud* enrollees in Vieques to that of *MiSalud* enrollees on the main island.

- *Mandatory EQRO activities are defined in 42 C.F.R. 438.358 and include:* Validation of Performance Improvement Projects (PIPs); Validation of Performance Measures; Review, within the previous three-year period, to determine MCO/PIHP compliance with State standards for access to care, structure and operations, and quality measurement and improvement.
- *Optional EQRO activities are defined in 42 C.F.R. 438.358 and include:* Validation of encounter data reported by an MCO or PIHP; Administration or validation of consumer or provider surveys of quality of care; Calculation of performance measures in addition to those reported by an MCO or PIHP and validated by an EQRO; Conducting PIPs in addition to those conducted

habilitar las estructuras a ser habilitadas para estos fines; ordenar al Departamento de la Familia coordinar los esfuerzos necesarios para hacer disponible este servicio; entre otros fines.

English Translation

A proposal from the Puerto Rico Senate. P. del S. 1774. 24 September 2010. Law. In order to create a "Law of Temporary Accommodation (Lodging) for the residents of Vieques and Culebra" with the purpose of implementing a program of temporary accommodations (lodging) coordinated by "Departamento de la Vivienda y el Departamento de la Familia" (Department of Housing and Family (DHF) to offer this service to the residents of these municipal islands of Vieques and Culebra who need transportation to the main island to receive health services or to care for a sick family member; Order the Departamento de la Vivienda y Familia to identify and allow for arrangements to be made for this purpose; Order the Departamento de la Familia to coordinate the resources needed to make this service more readily available.

⁸⁹ <http://www.medicaid.gov/Federal-Policy-Guidance/downloads/CIB-11-19-12.pdf>; <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Quality-of-Care-External-Quality-Review.html>

⁹⁰ <http://www.cms.gov/apps/glossary/excelDef.asp?Letter=E&Language=English>

⁹¹ <http://www.medicaid.gov/Federal-Policy-Guidance/downloads/CIB-11-19-12.pdf>; <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Quality-of-Care-External-Quality-Review.html>

⁹² See Vieques 2011 Insurance Coverage table on p.30

by an MCO or PIHP and validated by an EQRO; Conducting studies on quality that focus on a particular aspect of clinical or nonclinical services at a point in time.

In addition, the three mandatory and five optional EQR activities should be considered to guarantee a comprehensive quality review of services provided to MiSalud enrollees. Specific attention should be directed to priority health conditions in Vieques as identified through mechanisms outlined in Recommendation #4. Low quality care indicators for high priority health conditions should be evaluated as soon as possible and a response plan developed. Furthermore, the EQRO should track the improvements in these indicators to assure disease prevention and health improvement.

RECOMMENDATION #10:

Vieques should be considered as a priority geographical (rural) site for funding consistent with support provided to other Superfund communities located in rural areas.

This recommendation is based on the addition of Vieques to the Federal Superfund list since 2005. This type of support is consistent with that provided to other superfund communities located in rural areas⁹³, as well as recommendations of the GAO report entitled *Defense Infrastructure DOD Can Improve Its Response to Environmental Exposures on Military Installations* released May 2012⁹⁴.

RECOMMENDATION #11:

The PRDOH should invest in urgently needed services, equipment and supplies for the Centro de Salud Familiar Susana Centeno (CSFSC).

Adoption of an Electronic Health Records System: The Puerto Rico Department of Health (PRDOH) should work with the Regional Extension Center (REC) to accelerate the adoption of electronic health records at the CSFSC.⁹⁵ The Ponce School of Medicine was awarded \$19 million from the DHHS Office of the National Coordinator for Health Information Technology (ONC) to assist health care professionals and hospitals adopt and implement electronic health records (EHR) and use it to support improved health care. The goal is to build an information technology infrastructure that helps clinical decision making, avoid preventable medical errors, facilitate communication across providers, and make health information readily available to patients while adhering to strict confidentiality rules. It also facilitates the capture of information for the population and clinic-based disease registries. Consultative services are provided to physician practices through its REC which has met with Vieques private physicians. Currently, two of three primary care private practices have electronic health records.

Pharmacy Service: The CSFSC is licensed by the state for pharmacy services. Financial incentives should be created to facilitate recruitment of an additional pharmacist to address treatment delays in emergency and primary care setting because of limited services pharmacy service on-island. Currently, there is only one privately owned community pharmacy with one full-time pharmacist on the island with limited stock of specialty pharmaceuticals and supplies.

⁹³ <http://www.thefederalregister.com/d.p/2009-07-17-E9-16959>

⁹⁴ <http://www.gao.gov/products/GAO-12-412>

⁹⁵ Once the Commonwealth implements the infrastructure for the Medicaid E-HR Incentive Program, Medicaid eligible professionals can receive as much as \$63,750 in incentive payments over six years. Currently Medicare eligible professionals can receive as much as \$44,000 over five years.

Examination Equipment and Supplies: An inventory should be conducted to assess the condition of equipment and supplies especially in examination rooms and the emergency room. Essential equipment, such as examination tables are in dire need of repair, upgrade and replacement.

Internet Access: Full internet access should be made available to the administrative and clinical team to obtain current clinical guidelines and participate in learning collaboratives, educational forums, and webinars, all of which are all critical to remaining engaged in broader public health discussions with peers.

RECOMMENDATION #12:

DHHS should remain actively involved in providing technical assistance and support in the implementation of the eleven recommendations.

The Region II Vieques Workgroup should continue to support efforts by remaining actively involved with the Puerto Rico Department of Health (PRDOH), Vieques health care providers and stakeholders in the creation of a comprehensive and preventive primary care system on Vieques. Support includes, but is not limited to, technical assistance on funding opportunities, service development, and public health infrastructure development. Federal agencies should plan future visits to the island for in-person meetings with stakeholders. HHS should remain in communication with the Navy and EPA to remain current on remediation efforts; its impact on population health; and in the development of registries, and ongoing surveillance of the health of Viequenses.

FEDERAL FUNDING OPPORTUNITIES AND RESOURCES

The municipality of Vieques is eligible for a wide range of funding from HHS and other federal government departments. Vieques may also be eligible for funding from foundations and other companies as well. This section will focus on federal opportunities. Health care service funding can take the form of national grants, single source funding, and reimbursement of health care services. Although funding opportunities and submission dates vary annually, grant information is centralized and continually updated on the grants.gov website as well as on the DHHS and other federal government agency websites.⁹⁶ Potential applicants must register at grants.gov at least one month ahead of time in order to be eligible for federal grants.⁹⁷ One can also register to receive notification of grants at http://www.grants.gov/applicants/email_subscription.jsp The [Grants.gov](http://www.grants.gov) support is also available 24 hours per day.⁹⁸

There are several critical components to successfully obtaining grant funding: The awareness of the availability of grants serving the needs of the applicant; the judicious selection of programs and projects that complement and support organizational mission and goals and grant writing capability and capacity. It is imperative to note that success in obtaining grant funding hinge on actively building a process to routinely and rapidly identify relevant grant opportunities and building a cadre of experienced grant writers to effectively communicate programmatic, operational, and financial information. Without these components, many crucial opportunities can be missed or lost altogether.

The Affordable Care Act as well as the Recovery Act, through various HHS agencies, has also provided an extensive amount of funding to address health disparities in the United States. Some is in the form of appropriate data collections, health disparities research, health services delivery, health disparities by race and ethnicity, rural health disparities, health information disparities etc. Funding has been provided to specifically address comparative effectiveness research to HHS, NIH Institute of Minority Health and Health Disparities (NIMHD) <http://www.nimhd.nih.gov/> and the Agency for Health Research and Quality (AHRQ) <http://www.ahrq.gov/>. In addition funding has been provided to address community participatory research where research also includes the provision of services such as researching breast and colon cancer and providing screening and treatment services. This is frequently done in collaboration with a university (s).The HHS Action Plan to Reduce Racial and Ethnic Health Disparities is an excellent resource that addresses potential areas of funding. (http://minorityhealth.hhs.gov/npa/files/Plans/HHS/HHS_Plan_complete.pdf) The Agency for Health Research and Quality National Healthcare Quality & Disparities Report is a complimentary document. (<http://www.ahrq.gov/qual/qdr11.htm>)

Federal Health Disparities Collaboratives address and reduce disparities and improve the health of all persons (<http://minorityhealth.hhs.gov/fchdr/>) Current HRSA Break through Collaboratives include: Patient Safety and Clinical Pharmacy Services Collaborative (PSPC), Asthma, the Business Case / Redesign, Cancer, Cardiovascular Disease, Depression, Prevention, Tobacco Prevention and Smoking Cessation, Organ Donation, Rural Health Policy, Healthcare Provider Quality Improvement.⁹⁹ Thousands

⁹⁶ Grants.gov website <http://grants.gov/>

⁹⁷ Grants.gov provides a registration checklist (http://grants.gov/assets/Organization_Steps_Complete_Registration.pdf); Dun and Bradstreet registration (<http://fedgov.dnb.com/webform>) to receive a DUNS number; Central contractor registration www.sam.gov
This must be completed before Grants.gov registration can be initiated.

⁹⁸ Grants.gov contact information: 1-800-518-4726 (24/7, except Federal holidays)
Email: support@grants.gov ; Self-help portal: <http://grants.gov/portal>

⁹⁹ HRSA Breakthrough Collaboratives <http://www.hrsa.gov/healthit/collaboratives.html>

of persons from Puerto Rico are involved in these collaboratives and their health status has remarkably improved.

The following recommendations focus on strengthening the Vieques health care infrastructure; increasing health professional personnel; and building capacity for community based participatory research.

Funding Opportunities Based on Rural Designation

Vieques is one of ten municipalities that meet the federal criteria for rural designation that include Adjuntas, Coamo, Culebra, Jayuya, La Marias, Maricao, Salinas, Santa Isabel, and Utuado.¹⁰⁰ *Rurality* is an extremely important designation as it is associated with a broader range of funding opportunities, and in some instances, a higher reimbursement rate for health service delivery.

Vieques is eligible for funding and resources from the **Health Resources and Services Administration (HRSA) Office of Rural Health Policy (ORHP)**¹⁰¹. Though housed in HRSA, the ORHP has *department-wide responsibility* for analyzing the impact of policy on 62 million residents of rural communities. Created by Section 711 of the Social Security Act, ORHP advises the HHS Secretary on health issues within these communities, including the effects of Medicare and Medicaid program policies on rural residents' access to care, viability of rural hospitals, and availability of physicians and other health professionals. ORHP analyzes the effects of current policies and proposed statutory, regulatory, administrative, and budgetary changes on rural communities. Because many of the "policy levers" at the Federal level are related to the Medicare program, review and analysis of prospective changes to the Medicare program comprise much of the ORHP's policy work. Significant time and attention also are devoted to other policy areas, including Medicaid, the Children's Health Insurance Program (CHIP), health care workforce, quality of care and services, and health information technology (HIT).¹⁰²

Historically, Puerto Rico has had Rural Health Initiatives (RHIs) throughout the island which provided primary care funding for services to rural municipalities. Many of these RHIs have evolved, grown significantly, and converted to Federally Qualified Health Centers (FQHCs). In addition, Puerto Rico also receives a significant amount of migrant health funding.

The **Rural Assistance Center** is a "national health and human services information portal" providing a plethora of resources available to rural communities such as "available programs, funding, and research that can enable them to provide quality health and human services to rural residents".¹⁰³ Some of the funding opportunities, which would be helpful not only to Vieques but other rural communities in Puerto Rico for 2012 and future years, include but are not limited to technical assistance; rural health network planning grants; telehealth network grants; the development of electronic health records; loans; capital improvement; as well as many other resources. There are also annual workshops to assist community organizations in applying and increasing their ability to obtain funding. Currently the ORHP web site lists only one 2011 grant to Puerto Rico for \$99,000 which was due to expire in April of 2012.

The **US Department of Agriculture (USDA) Rural Development Office** in Puerto Rico supports distance learning, telemedicine, infrastructure, facility construction, and other activities. For example, the USDA

¹⁰⁰ Other municipalities designated as rural include: Adjuntas, Coamo, Culebra, Jayuya, La Marias, Maricao, Salinas, Santa Isabel, Utuado

¹⁰¹ Office of Rural Health Policy <http://www.hrsa.gov/ruralhealth/>

¹⁰² Health Resource Service Administration Office of Rural Health Policy <http://www.hrsa.gov/ruralhealth/>
<http://www.hrsa.gov/ruralhealth/index.html>

¹⁰³ Rural Assistance Center (RAC) <http://www.raconline.org/>

Rural Development provided the funding for the health care facility in Cidra Puerto Rico, which is part of the COSSMA Federally Qualified Health Center network.¹⁰⁴

Opportunities Based on Health Professions Shortage Area Designation

Vieques received its primary care medical, dental and mental health *Health Profession Shortage Area* (HPSA) designations in 2012. The primary care HPSA designation was received on 2/2/2012 with a score of 24; the dental HPSA was received on 3/16/2012 with a score of 17; and the mental health HPSA was received on 5/10/2012 with a score of 18. As a result, it can recruit primary health care personnel through the **National Health Service Corps (NHSC)**.¹⁰⁵ The Workgroup learned that its designation status expired in 2005 and brought this to the attention of HRSA's Bureau of Clinician Recruitment and Service Office of Designation (BCRS/OD). Having the HPSA designation for Primary Care allows the CSFSC to apply to become a National Health Service Corps *approved site*. NHSC site approval will aid in the recruitment and retention of NHSC providers based on HPSA type. For example, upon completion of their education and training, NHSC scholars (physicians, dentists, nurse practitioners, certified nurse midwives, and physician assistants) can pursue employment and placement at CSFSC to fulfill their service requirements. NHSC Student to Service program physicians can also pursue employment at CSFSC. For NHSC Loan Repayment, once employed by CSGSC the following disciplines may apply for NHSC loan repayment on a competitive basis: physicians, dentists, registered dental hygienist, health service psychologists, licensed clinical social workers, psychiatric nurse specialist, marriage and family therapist, and licensed professional counselors. The recruitment and retention of NHSC clinicians will build primary care capacity on-island.

¹⁰⁴ United States Department of Agriculture Rural Development <http://www.rurdev.usda.gov/Home.html>

¹⁰⁵ National Health Service Corps <http://nhsc.hrsa.gov/>

COMPREHENSIVE PRIMARY CARE SERVICES DEVELOPMENT
<p>To establish an organizational and reimbursement mechanism that supports on-Vieques island:</p> <ol style="list-style-type: none"> 1. Specialty medical care 2. Specialties able to diagnose and address most conditions <u>related to environmental exposure to toxins</u>: Internal Medicine/Pulmonary/Neurology/Dermatology 3. Environmental medicine consultative services 4. Pediatric, adult and emergency medicine physicians
GRANT/AGREEMENT
<p>CMS Health Care Innovation Award Cooperative Agreements</p> <p>The Innovation Center is keenly aware that many of the best ideas <u>originate in the field</u>. As such, it is invested in engaging a broad set of innovation partners ---to identify and test ---new service delivery and payment models. The proposal s of the award recipients were required to demonstrate rapid deployment of care improvement models that improve care while lowering costs. Awards range from approximately \$1 million to \$30 million for a three year period. Proposals are expected to describe innovative ways to organize and pay for health care services and infrastructure changes for people enrolled in Medicare, Medicaid and the Children’s Health Insurance Program, particularly those with the highest health care needs. Local governments, public-private partnerships, multi-payer collaboratives, providers, payors, and others were eligible to apply.</p>
FUNDING SOURCE AND CONTACT INFORMATION
<p>Department: DHHS</p> <p>Agency: Centers for Medicare & Medicaid Services Innovation Center</p> <p>Innovation Center Health Challenge Cooperative Agreement http://innovations.cms.gov/Files/x/Health-Care-Innovation-Challenge-Funding-Opportunity-Announcement.pdf</p>
ENVIRONMENTAL MEDICINE CONSULTATIVE SERVICES
GRANT/AGREEMENT
<p>Consultative services can be arranged with one or more academic institutions to provide orientation and training to public and private primary care providers caring for residents of Vieques. In addition to increasing their understanding of the role of the environment in causing or mediating disease, primary care physicians will develop skills to recognize and diagnose conditions and diseases that may be related environmental exposure to toxins and noise; obtain tools for the uniform collection of comprehensive patient histories; and gain knowledge of appropriate diagnostic tests, treatment, and management of disease. The information will enhance data captured in population and disease registries. Training and patient consultative services may be conducted remotely via a telemedicine program but should include periodic in-person specialty consultation.</p>
INSTITUTIONS
<p>University of Puerto Rico, School of Public Health -Department of Environmental Health</p> <p>Mount Sinai School of Medicine - Department of Preventive Medicine</p> <p>Yale University School of Medicine -Occupational and Environmental Medicine</p> <p>Johns Hopkins University School of Public Health -Department of Environmental Health Sciences /Occupational and Environmental Medicine Residency Program</p> <p>University of Washington, Seattle -Department of Environmental & Occupational Health Sciences</p>

TELEHEALTH

Telehealth is the use of electronic information and telecommunication technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration. Technologies include videoconferencing, the internet, store-and-forward imaging, streaming media, and terrestrial and wireless communications. Telehealth may incorporate comparative effective research as well as electronic medical records.

GRANT/AGREEMENT

The **Telehealth Network Grant Program** (TNGP) is one of several telehealth grants available through Health Resources and Services Administration (HRSA) and is a competitive grant program that funds projects that demonstrate the use of telehealth networks to improve health care services for medically underserved populations in urban, rural, and frontier communities. More specifically, the networks can be used to: (a) expand access to, coordinate, and improve the quality of health care services;(b) improve and expand the training of health care providers; and/or (c) expand and improve the quality of health information available to health care providers, patients, and their families.
<http://www.hrsa.gov/ruralhealth/about/telehealth>

The **Extension for Community Healthcare Outcomes Project** (ECHO) a telemedicine program at the University of New Mexico originally funded by the DHHS Agency for Health Research and Quality (AHRQ) and is currently funded by the New Mexico Legislature and Robert Wood Johnson. The Extension for Community Healthcare Outcomes (ECHO) Model was developed by the Department of Internal Medicine at the University of New Mexico Health Sciences Center to deliver complex specialty medical care to underserved populations. Using state-of-the-art telehealth technology, ECHO trains and supports primary care providers (PCPs) to safely and effectively treat chronic complex diseases. This innovative idea provides a new platform to deliver scarce medical resources. The ECHO model brings healthcare providers together as a practice community. The ultimate goal is to provide the same level of healthcare to rural patients with chronic diseases as can be obtained in an urban setting. A secondary goal is to provide rural healthcare practitioners with a level of interaction and support commensurate with their urban counterparts to enhance their technical competence and decrease their feelings of professional isolation. This model could prove ideal for Vieques and the University of Puerto Rico School of Medicine and School of Public Health.

FUNDING SOURCE AND CONTACT INFORMATION

Department: DHHS

Health Resources and Services Administration Office of Rural Health Policy Telehealth Resources

<http://www.hrsa.gov/ruralhealth/about/telehealth/telehealth.html>

CHRONIC DISEASE PREVENTION and HEALTH PROMOTION FUNDING

GRANT/AGREEMENT

CDC's National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) is at the forefront of the nation's efforts to prevent and control chronic diseases. NCCDPHP works with many diverse partners, including state and local health and education departments; other federal health agencies; international and national health organizations; academic institutions; philanthropic foundations; industry and labor groups; and professional, voluntary and community organizations.

FUNDING SOURCE AND CONTACT INFORMATION

National Diabetes Prevention and Control Program: <http://www.cdc.gov/diabetes/index.htm>

In Puerto Rico: <http://www.salud.gov.pr/Services/PrevencionControlDiabetes/Pages/default.aspx>

National Tobacco Control Program:

http://www.cdc.gov/tobacco/tobacco_control_programs/ntcp/index.htm

<http://latinotobaccocontrol.org/>

Cancer Prevention and Control Programs (<http://www.cdc.gov/cancer/dcpc/about/programs.htm>) funds three programs in Puerto Rico:

- National Breast and Cervical Cancer Early Detection Program (in Puerto Rico: http://apps.nccd.cdc.gov/dcpc_Programs/default.aspx?NPID=1&PID=53)
- Comprehensive Cancer Control Program (in Puerto Rico: <http://www.md.rcm.upr.edu/ccpr/eng/>)
- National Program of Cancer Registries (in Puerto Rico: http://apps.nccd.cdc.gov/dcpc_Programs/default.aspx?NPID=3&PID=179)

CAREER EPIDEMIOLOGY FIELD OFFICER (CEFO)
GRANT/AGREEMENT
<p>The Career Epidemiology Field Officer (CEFO) Program is dedicated to strengthening epidemiologic and scientific support of preparedness activities and enhancing epidemiologic and scientific output from state and local programs. A CEFO is a CDC epidemiologist assigned to a state, local, or territorial public health department to facilitate and strengthen their epidemiologic capacity and public health preparedness. Prior to these assignments, CEFOs have completed CDC’s Epidemic Intelligence Service training program or comparable training. CEFOs are professionals with experience in epidemiology and surveillance, public health preparedness, research, training, and policy development.</p> <p>CEFOs are assigned to state, local, or territorial public health departments by request. Health departments may contact the CEFO Program to initiate a request for a CEFO. Once the request is approved, CEFO Program staff work closely with the requesting health department to identify priority areas of work and coordinate recruitment of CEFO candidates. Assignments take into account several factors, including:</p> <ul style="list-style-type: none"> • Potential risk for major public health emergencies • Existing epidemiologic capacity • The requesting public health department’s commitment to support and utilize the skills and knowledge of a CEFO assignee
FUNDING SOURCE AND CONTACT INFORMATION
<p>CEFO positions are funded through CDC’s Public Health Emergency Preparedness cooperative agreement. The requesting agency supports an initial CEFO assignment of two years with the option to renew the request annually.</p> <p>http://www.cdc.gov/phpr/science/cefo.htm</p> <p>For additional information about the CEFO Program. For questions, contact the CEFO Program directly at cefo@cdc.gov or (770) 488-2624.</p>

OPPORTUNITIES FOR DEVELOPMENT OF COMMUNITY PARTICIPATORY RESEARCH
GRANT/AGREEMENT
<p>DHHS National Institute on Minority Health and Health Disparities (NIMHD) Recently elevated to an institute, the NIMHD “The mission of the National Center on Minority Health and Health Disparities (NCMHD) is to promote minority health and to lead, coordinate, support, and assess the NIH effort to reduce and ultimately eliminate health disparities. In this effort NCMHD will conduct and support basic, clinical, social, and behavioral research, promote research infrastructure and training, foster emerging programs, disseminate information, and reach out to minority and other health disparity communities.” The NIMHD also provides funding for comparative effectiveness research.</p> <p>DHHS National Institutes of Health National Institute on Minority Health and Health Disparities http://www.nimhd.nih.gov/</p>
<p>DHHS Agency for Health Care Policy and Research provides a wide range of funding to address health disparities, comparative effectiveness research. http://www.ahrq.gov/</p>

PRIVATE FOUNDATIONS

Private foundations and public private partnerships is another venue for Vieques to obtain additional funding and resources and private public partnerships can be developed. More specifically, the Robert Wood Johnson Foundation and The Pew Charitable Trusts provide funding for **Health Impact Projects**. “The Health Impact Project¹⁰⁶ currently funds a series of Health Impact Assessment (HIA) demonstration projects working across a range of sectors and geographic locations. The funding enables awardees to develop a HIA, which is a study that can help policy makers and community members identify and address the potential, and often overlooked, health implications of policy proposals in a broad range of sectors, including agriculture, transportation and development. Grants range from \$25,000 to \$125,000 and will support government agencies, educational institutions, and nonprofit organizations. Grantees will receive training, mentoring and technical assistance from the Health Impact Project and leading HIA experts.”

¹⁰⁶ Health Impact Project <http://www.healthimpactproject.org/>

APPENDICES:

A. DHHS Region II Vieques Workgroup Site Visit Itinerary

VIEQUES - Needs Assessments Project
Week: September 26 to September 30, 2011

Participants:

Agency	Name	E-mail
CMS	Nilsa Gutierrez, MD	Nilsa.gutierrez@cms.hhs.gov
CMS	Peter Reisman	Peter.reisman@cms.hhs.gov
CMS	Iris A. Bermudez	Iris.bermudez@cms.hhs.gov
CMS	Thomas Bane	Thomas.bane@cms.hhs.gov
HRSA	Claritsa Malave, MD, MPH	Cmalave@hrsa.gov

Puerto Rico & Vieques Trip

Monday, Sep 26	Tuesday, Sep 27	Wednesday, Sep 28	Thursday, Sep 29	Friday, Sep 30
1:00 PM Arrival to PR 2:30-3:30 PM Meeting with Ms. Alicia Suarez from Primary Health Care at Caribe Hilton Hotel	9:00 – 11:00 AM Meeting with Department of Health Mr. Jose A. Vazquez at ASES 3:00-5:00 PM Meeting with ASES Frank R. Diaz Angie Avila	11:00 AM Meeting with Dr. Betzaida Mackenzie CDT Susana Centeno Director 2:00 – 4:00 PM Providers Meeting at CDT Susana Centeno 5:00 PM Meeting with Ms. Zaida Torres Ms. Nilda Medina from Servicios de Salud Integral de Vieques (SSIV)	8:00 -10:00 AM Beneficiary Town Hall Meeting at CDT Susana Centeno 11:00-12:00 Noon Meeting with Vieques Mayor Ms. Evelyn Delorme-Camacho 1:00 PM Site Visits with Servicios de Salud Integral de Vieques 6:00 PM Returned to PR Island by Ferry Vieques to Fajardo	9:00 AM Meeting with Department of Health Jose A. Vazquez Annie Mayol Maggy Woolf Dr. Lorenzo Gonzalez 11:30-1:30 PM Meeting with School of Public Health 5:00 PM Depart to New York



**INVITAMOS A BENEFICIARIOS de
Medicare, Medicaid y Mi Salud
A:**

Conversatorio con el Equipo del
Departamento de Salud Federal

Queremos escuchar sus necesidades sobre
los servicios de salud en Vieques

**Jueves, 1^{ro} de septiembre de 2011
8:00 AM a 10:00 AM
En la Sala de Espera del CDT
Susana Centeno en
Vieques, PR 00765**



**INVITAMOS A BENEFICIARIOS
Medicare, Medicaid, Mi Salud
A:**

Conversatorio con el Equipo del
Departamento de Salud Federal

Queremos escuchar sus necesidades sobre
los servicios de salud en Vieques

**Jueves, 1^{ro} de septiembre de 2011
8:00 AM a 10:00 AM
En la Sala de Espera del CDT
Susana Centeno en
Vieques, PR 00765**

PROVIDER	NAME
Physicians	Francisco de Cardenas-Valdes
	Jose Figueroa, MD
	Luis Rivera-Melendez, MD
	Cesar Alcantara Card, MD
Pharmacy	Farmacia San Antonio Owner: Eteldreda Acevedo
Home Care	Salud en el Hogar del Caribe, Inc. Contact: Sra. Rosa Lopez
Hospice & Home Care	Gregoria Auffant Contact: Sra. Carmen Rivera
DME Companies	Best Option, Inc. Contact: Vicky Santiago Directora de Mercadeo Margarita Rodriguez, Directora de Manejo de Casos
Diálisis Unit	Fresenius Medical Care Contact: Migdalia Cuevas
Laboratories	Laboratorios Santa Lucia 108 Calle Muñoz Rivera Vieques, PR 00765 Contact: Diana Ramirez, Adm.
	Laboratorio Clinico del Este en el CDT de Ambos son del mismo dueño
	Quest Laboratories
CDT Vieques	CDT Susana Centeno Barrio Destino Carr. #997, Km. 0, Hm. 0 Vieques, PR 00765 (al lado Parque de Bombas)
ASSMCA CDT Vieques	Silvia Rivera Psychologist
ASSMCA CDT Vieques	Iris Aponte Social Worker

B. List of Resources

BIOMONITORING, ENVIRONMENTAL, AND POPULATION HEALTH RESOURCES

Barton, James and Dr. James W. Porter. 2004. *Radiological, Chemical, and Environmental Health Assessment of the Marine Resources of the Isla de Vieques Bombing Range, Bahia Salina del Sur, Puerto Rico*.

Brantley, James. 2011. *Vieques Clean Up News!* NAVFAC Atlantic.

Diaz de Osborne, Elba, Pablo Acevedo-Acevedo, and Arturo Massol Deya (n.d) *Evaluación de Metales Pesados en Productos Agrícolas de una Finca con Prácticas Orgánicas en el Bo. Luján Sector Destino de Vieques (Puerto Rico)*. Universidad de Puerto Rico, Departamento de Biología.

Fellu-Mojer, Monica. 2006. *Empeora la Salud en Vieques*. Ciencia PR.

Figueroa, Nayda, Erick Suárez, Taína de la Torre, Mariela Torres, and Javier Perez. 2009. *Incidencia y Mortalidad de Cáncer en Vieques 1990-2004*. Registro Central de Cáncer, Departamento de Salud de Puerto Rico.

Hoffsommer, John C. and Donald J. Glover. 1978. *United States Navy's Explosives Analysis of Water and Soil Samples Taken on Vieques Island*. Naval Surface Weapons Center, Explosive Chemistry Branch.

Juanita Sanchez v. United States. 10-1648 PR App. 1 (2010)

Naval Facilities Engineering command (NAVFAC). 2011. *Proposed Remedial Action Plan. Solid Waste Management Unit 1. Atlantic Fleet Weapons Training Area – Vieques*.

Notary Public. 2009. *Affidavit of Arturo Massol-Deya*. United States District Court for the District of Puerto Rico.

Notary Public. 2009. *Affidavit of Dr. Carmen Ortiz Roque*. United States District Court for the District of Puerto Rico.

Notary Public. 2009. *Affidavit of Dr. James W. Porter*. United States District Court for the District of Puerto Rico.

Notary Public. 2009. *Affidavit of Dr. John Peter Wargo*. United States District Court for the District of Puerto Rico.

Ortiz-Roque, Carmen. 2002. *Human Mercury Contamination in a Caribbean island: Vieques*.

Ortiz-Roque, Carmen and Yadiris López Rivera. 2004. *Mercury Contamination in reproductive age women in a Caribbean island: Vieques*. J Epidemiol Community Health; 58:756-757.

Ortiz-Roque, Carmen (n.d) *Heavy metal exposure and disease in the proximity of a military base*. Environmental Health Committee. San Juan, PR

Pagán Raggio, Tanya, and Arthur L. Whaley. 2001. *Public Health Effects of Bombing on Vieques, Puerto Rico*. Sophie Davis School of Biomedical Education, City University of New York Medical School.

Porter, James. (n.d) *Porter Study of Pollutants of Reefs Surrounding Vieques*.

Puerto Rico Department of Health. 1999. *Encuesta de Salud en Vieques*. Departamento de Salud de Puerto Rico, División de Vigilancia Epidemiológica y Estadística – Enfermedades Crónicas.

Ramirez Alers, Betzaida. 2001. *Por la Borda Teoría de Vibroacústica*. El Vocero

Torres Gotay, Benjamin. 2002. *Acecha el Cancer a la Isla municipio*.
www.puertorico.com/forums/politics/11307-mayor-el-cancer-en-vieques.html

United States Environmental Protection Agency. 2012. *EPA Activities Update, AFWTA – Vieques Superfund Site*. United States Environmental Protection Agency. Caribbean Environmental Protection Division, Vieques Field Office.

United States Food and Drug Administration. 2009. *What you need to Know about Mercury in Fish and Shellfish*. US Food and Drug Administration, US Environmental Protection Agency.

Wargo, John. 2010. *Environmental Politics and Law: Lecture 6 Transcript*. Open Yale courses.

Wargo, John. 2010. *The Future of Vieques, Puerto Rico*. Yale University.

Wehner, Diane and Dr. David Whitall. 2010. *An Ecological Characterization of the Marine Resources of Vieques, Puerto Rico*. National Oceanic and Atmospheric Administration, National Ocean Services

Zavala Zegarra, David. 1999. *Incidencia de Cáncer en Vieques 1960-1994*. Departamento de Salud de Puerto Rico, Registro Central de Cáncer de Puerto Rico, División de Vigilancia Epidemiológica y Estadística.

Zavala Zegarra, David. 2000. *Versión Actualizada: Incidencia de Cáncer en Vieques 1960-1994*. Departamento de Salud de Puerto Rico, Registro Central de Cáncer de Puerto Rico, División de Vigilancia Epidemiológica y Estadística.

VIEQUES HEALTH CARE SYSTEM DOCUMENTS

Albino, James. 2011. *Proposal for the Development of the Healthcare Facility of Roosevelt Roads*. Servicios de Salud Episcopales, Inc.

Boudreau, Abbie and Scott Bronstein. 2010. *Island Residents sue U.S., saying military made them sick*. CNN. <http://edition.cnn.com/2010/US/02/01/vieques.illness/>

Carmona, Richard. “Your Research on Mercury Contamination in Reproductive Age Women in Puerto Rico.” Letter. United States Public Health Service. 12 Nov. 2004

Chicago Consultants Studio, Incl. 2011. *Roosevelt Roads Redevelopment: President’s Task Force on PR Briefing*. Authority for Local Development.

Departamento de Salud, PR. 2012. *Division Instituciones de Salud, Centros de Diagnóstico Tratamiento*.

Gannett, Kathy. 2011. *Nueva Iniciativa de Salud en Vieques*. Vieques Events; 10(4): 18-20.

Frumkin, Howard. "ATSDR Meeting." Letter. National Centers for Environmental Health/Agency for Toxic Substances and Disease Registry. 14 Oct. 2009.

Frumkin, Howard. "Re: Vieques Health Reassessment." Letter. National Centers for Environmental Health/Agency for Toxic Substances and Disease Registry. 17 Nov. 2009.

Jones, Victoria. 2006. *Health Care in Vieques: a look at the health opportunities and limitation for Viequenses*.

Lava, Jesse. 2010. *Creating a Healthier Vieques*. American Values Network, Harvard University Hauser Center.

Mead, Kevin. 2011. *Congressional Hispanic Caucus backs health bill to 'bring justice to Vieques'*. Caribbean Business.

http://www.caribbeanbusinesspr.com/news03.php?nt_id=68919&ct_id=1&ct_name=1

Mellado Lopez, Carlos. "Información acerca de los residentes en Vieques". Letter. Oficina del Procurador de la Salud. 15 Agosto 2001.

Negrón Rivera, Miguel. 2011. *Puerto Rico Medicaid Program*. Puerto Rico Department of Health.

Oficina de las Personas de Edad Avanzada (OPPEA)2010. *Investigación acerca de los servicios de transporte en Vieques, Culebra y Fajardo*.

Oficina del Procurador de la Salud. (n.d). *Efforts by the Puerto Rico Health Care Ombudsman Office to Benefit the Citizens Patients living in the Municipalities of Vieques and Culebra*.

Ortiz-Roque, Carmen. "Vieques Health Reassessment". Letter. Committee for Public and Environmental Health, College of Physicians and Surgeons. 10 Oct. 2010: 1-2.

Ortiz-Roque, Carmen. "Vieques Health Status". Letter. Colegio de Medicos-Cirujanos de Puerto Rico. 6 Mar. 2011:1-3.

Ortiz Rivera, Joel. 2011. *A privatizar el servicio de lanchas de Vieques y Culebra*. El Nuevo Dia. <http://elnuevodia.com/Xstatic/endi/template/imprimir.aspx?id=1033002&t=3>

Ortiz, Rivera. Joel. 2011. *A la vista mejores servicios médicos para Vieques*. El Nuevo Dia. <http://elnuevodia.com/alavistamejoresserviciosmedicosparavieques-1039775.html>

Ramos Valencia, Gilberto. 2002. *Estudio Continuo de Salud para los Municipios de Puerto Rico: Año 2002*. Proyecto Estudio Continuo de Salud para los Municipios de Puerto Rico. Escuela graduada de Salud Pública.

United States Census Bureau. 2000. *Rural Definitions: Data Documentation and Methods*.

United States. Cong. Senate. *To construct a specialty hospital and toxins research center on the island of Vieques, Puerto Rico, and for other purposes*. 112th Cong, 1st sess. H.R. 1645. Washington: GPO. 2011. Print.

Universidad de Puerto Rico, recinto de Ciencias Médicas. (n.d) *Estudio continuo de Salud para los Municipios de Puerto Rico*. Departamento de Salud.

DHHS REGULATION AND PROGRAM RESOURCES

Arora, Sanjeev. (n.d) *ECHO Project: Extension for Community Healthcare Outcomes*. University of New Mexico Health Sciences Center, Department of Internal Medicine.

Bradley, Elizabeth H, Jeph Herrin, Brien Elbel, Robert L. McNamara, David J. Magid, Brahmajee K. Nallamotheu, Yongfei Wang, Sharon-Lise T. Normand, John A. Spertus, and Harlan M. Krumholz. 2006. *Hospital Quality for Acute Myocardial Infarction. Correlation Among Process Measures and Relationship with Short-Term Mortality*. JAMA 296(1): 72-78.

Centers for Medicare and Medicaid Services. 42 CFR 485, Subpart F – Condition of Participation: Critical Access Hospitals (CAHs)

Families USA 2011. *2011 Annual Federal Poverty Guidelines*.

<http://www.familiesusa.org/resources/tools-for-advocates/guidelines/federal-poverty-guidelines.html>

Health Resources and Services Administration (HRSA). 2006. *Comparison of Rural Health Clinic and Federally Qualified Health Center Programs*. HRSA, Department of Health and Human Services.

Health Resources and Services Administration (HRSA). 2010. *Rural Health Network Development Grant Program*. <http://www.grants.gov/search/search.do?mode=VIEW&oppId=56451>

Health Resources and Services Administration (HRSA). 2011. *Medicare Rural Hospital Flexibility*. <http://www.hrsa.gov/ruralhealth/about/hospitalstate/medicareflexibility .html>

Centers for Medicare and Medicaid Services. 2011. *Medicare finalizes a new rule for telemedicine services to keep beneficiaries in rural and remote areas dialed in through telemedicine*. Centers for Medicare and Medicaid Services, Department of Health and Human Services.

Medicare Learning Network. 2009. *Critical Access Hospital Fact Sheet*. Centers for Medicare and Medicaid Services, Medicare Learning Network.

Medicare Learning Network. 2010. *Rural Health Clinic Fact Sheet*. Centers for Medicare and Medicaid Services, Department of Health and Human Services.

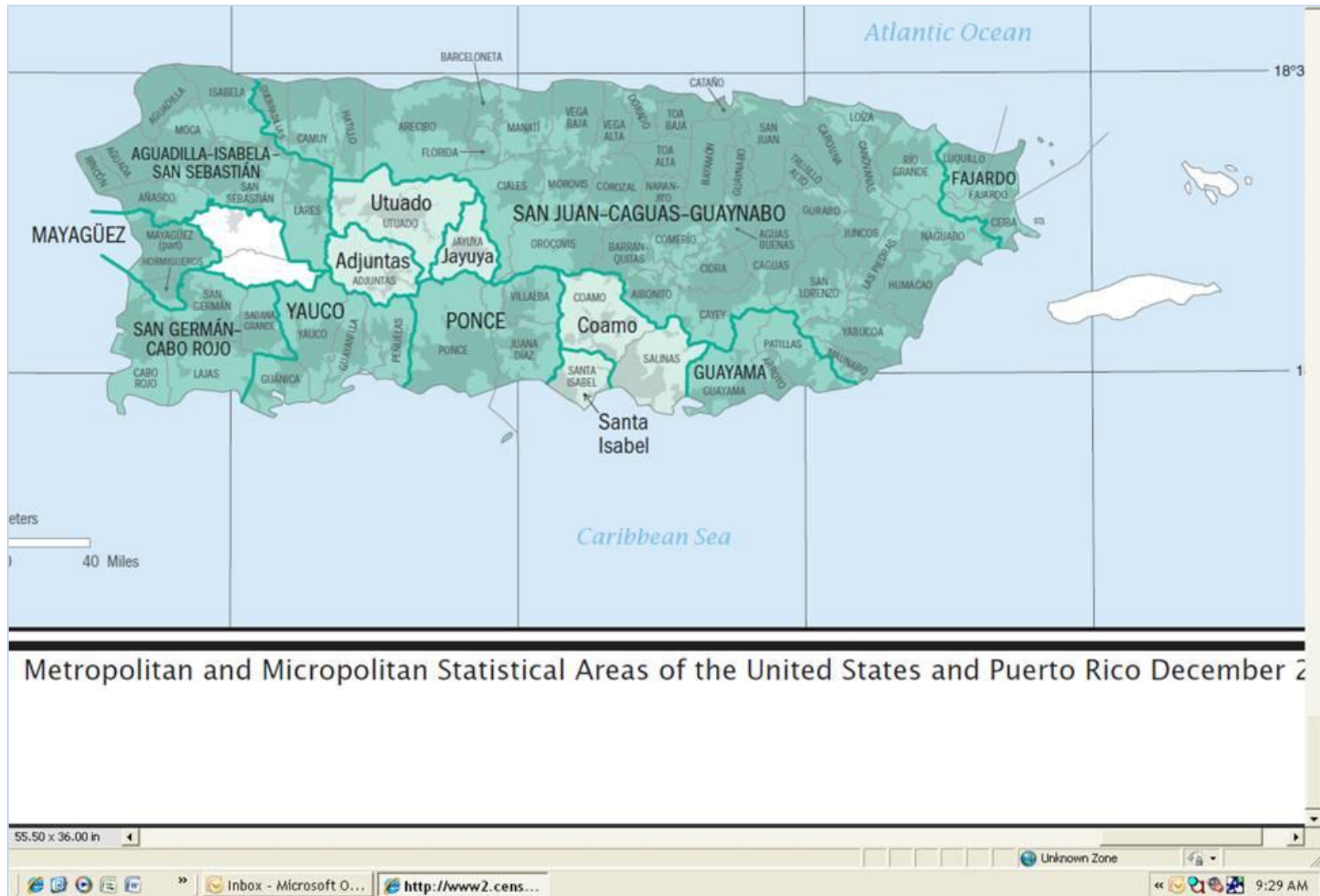
Ross, Joseph S, Sharon-Lise T. Normand, Yun Wang, Brahmajee K Nallamotheu, Judith H. Lichtman, and Harlan M. Krumholz. 2008. *Hospital Remoteness and Thirty-Day Mortality from Three Serious Conditions*. Health Affairs 27(6): 1707-1717

United States Department of Health and Human Services, Health Resources and Service Administration, Office of Rural Health Policy. 2010. *A manual on Effective collaboration Between Critical Access Hospitals and Federally Qualified Health Centers*.

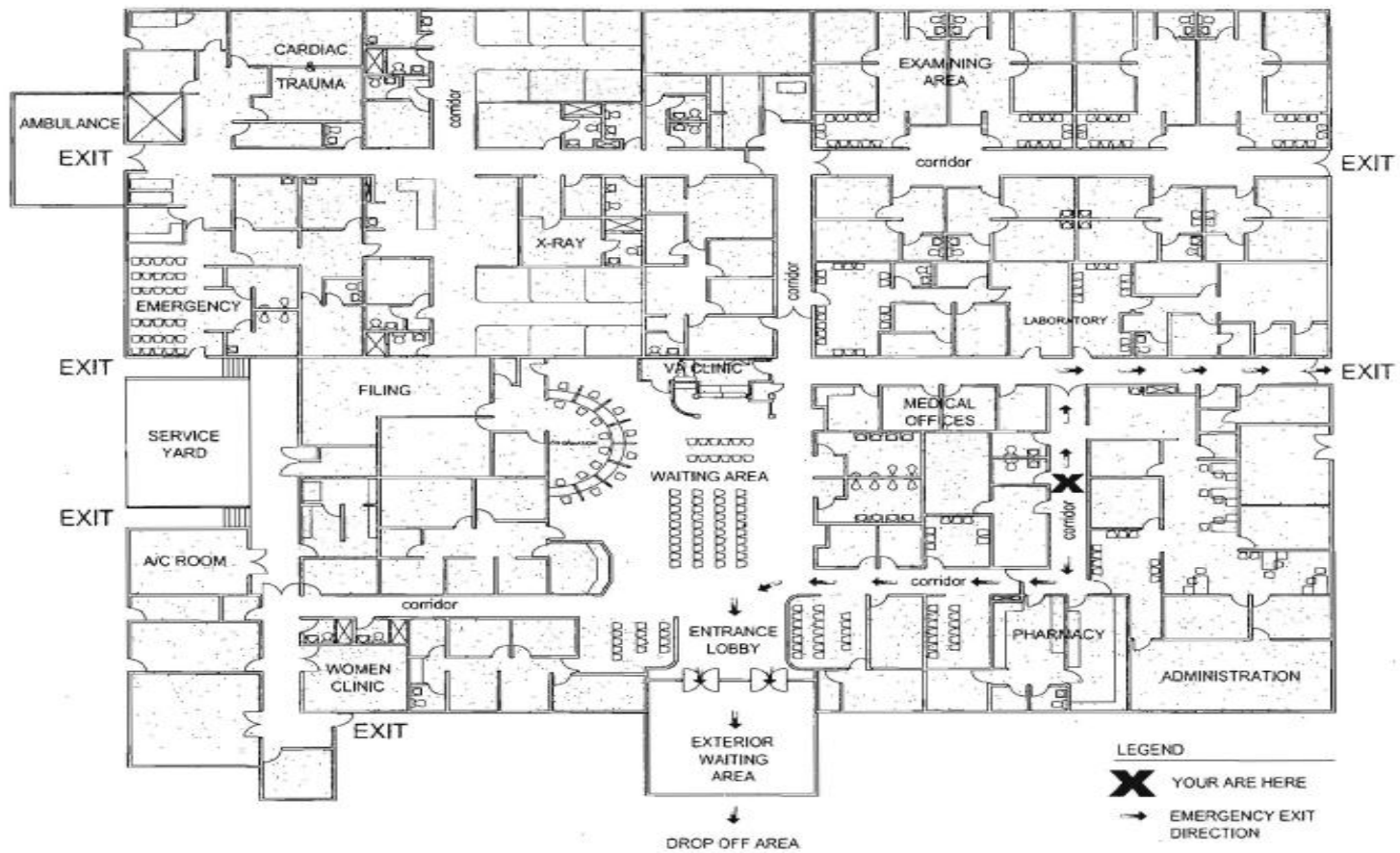
C. Vieques National Wildlife Refuge map



D. US Office of management and Budget: Met and Micro Stats Area of US and PR



E. Centro de Salud Familiar Susana Centeno Floor Plan



FIRE & EMERGENCY EXIT PLAN

F. Centro de Salud Familiar Susana Centeno Facility License

<p>GOBIERNO DE PUERTO RICO DEPARTAMENTO DE SALUD SECRETARÍA AUXILIAR PARA REGLAMENTACIÓN Y ACREDITACIÓN DE FACILIDADES DE SALUD</p>		<p>DEPARTAMENTO DE SALUD</p>
<p>Otorga esta</p> <h1 style="margin: 0;">LICENCIA</h1> <p style="margin: 0;">A</p> <p style="margin: 0;">CENTRO DE SALUD FAMILIAR SUSANA CENTENO</p> <p style="margin: 0;">de</p> <p style="margin: 0;">Dueño: Gobierno Municipal de Vieques Administrador: Departamento de Salud</p> <p style="margin: 0;">para operar como</p> <p style="margin: 0;">Hospital</p> <p style="margin: 0;">INCLUYE SERVICIOS DE MATERNIDAD CONSISTE EN: UNA (1) SALA ANTE PARTO, UNA (1) SALA DE PARTO, UNA (1) SALA DE POSTPARTO, UNA SALA DE OPERACIONES Y DOS (2) CAMAS DE POSTPARTO, LABORATORIO CLÍNICO, FARMACIA, RAYOS X Y SALA DE EMERGENCIA</p> <p style="margin: 0;">con capacidad de 2 camas, en el sitio y edificio en que en esta fecha radica y por el término de dos años, sujeto a revocación de acuerdo con la Ley Número 101 del 26 de junio de 1965, según enmendada, y su Reglamento.</p> <p style="margin: 0;">Dada en San Juan de Puerto Rico, al 21 de junio de 2011</p> <p style="margin: 0;">Lic. Núm. 24 CNC Núm. 09-152 Radicada en Carr. 997 Km. 1.0, Barrio Destino Vieques, Puerto Rico</p> <p style="margin: 0;">Vigencia: 19 de abril de 2011 al 18 de abril de 2013</p> <div style="display: flex; justify-content: space-between;"><div style="text-align: center;"><p style="margin: 0;">WANDA I. RODRÍGUEZ HERNÁNDEZ, Esq SECRETARIA AUXILIAR</p></div><div style="text-align: center;"><p style="margin: 0;">LORENZO GONZÁLEZ FELICIANO, MD SECRETARIO</p></div></div>		

Estado Libre Asociado de Puerto Rico
SECRETARÍA AUXILIAR PARA REGlamentación
Y ACREDITACIÓN DE FACILIDADES DE SALUD
Antiguo Hosp. Ruiz Soler, Bayamón, PR 00939



Estado Libre Asociado de Puerto Rico
Departamento de Salud

CERTIFICADO NUM. 02-190

**CERTIFICADO DE NECESIDAD
Y CONVENIENCIA**

NOMBRE Y TIPO DE FACILIDAD: CENTRO DE SALUD FAMILIAR
SUSANA CENTENO

LOCALIZACIÓN: Carr. 997, Km. 1.0, Bo Destino, Vieques, PR

DUEÑO: Gobierno Municipal de Vieques

ADMINISTRADOR: Departamento de Salud

ACCIÓN AUTORIZADA: El Centro de Salud arriba indicado adicionará un nuevo servicio de maternidad consistente en: una sala ante-parto, una sala de parto, una sala post parto, una sala de operaciones y dos camas post parto.

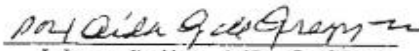
Incluye servicios de laboratorio clínico, rayos x y farmacia.

Queda sin efecto el certificado 01-271

Certifico que la acción aquí autorizada proveerá servicios necesarios para la población a ser servida y/o no afectará indebidamente los servicios existentes, contribuyendo a un desarrollo ordenado y adecuado de los servicios de salud conforme al Artículo 3 de la Ley 2 del 7 de noviembre de 1975, según enmendada.

En conformidad con la autoridad investida en mí por dicha Ley, por la presente, expido este Certificado, sujeto a las siguientes condiciones:

1. De no demostrarse progreso satisfactorio al cabo de 12 meses de la fecha de expedición, el Certificado se considera expirado. Peticiones de reconsideración para alterar lo autorizado o extender el periodo de vigencia, serán considerados conforme al Reglamento Administrativo y los planes de salud en vigor, al momento de ser radicadas las mismas, según apliquen.
2. El Certificado podrá ser revocado en cualquier momento, si se demuestra que la información ofrecida por el peticionario era incorrecta.


Johnny Rullán, MD, FACPM
Secretario de Salud

17 de julio de 2002
Fecha

PAGE INTENTIONALLY LEFT BLANK

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES

Region II Vieques Workgroup Contact Information

Jaime R. Torres, DPM, MS
Regional Director, Region II
U.S. Department of Health and Human Services
26 Federal Plaza, Suite 3835
New York, New York 10278

Nilsa Gutierrez, MD, MPH, FACP
Chief Medical Officer , Region II
Centers for Medicare & Medicaid Services
26 Federal Plaza, Suite 3811
New York, New York 10278

Tanya Pagán Raggio-Ashley, MD MPH, FAAP
Senior Medical Officer, Region II (ORO)
Health Resources and Services Administration
26 Federal Plaza, Room 3337
New York, New York 10278

Iris A. Bermudez
Director, Region II PR/VI Field Office
Centers for Medicare & Medicaid Services
La Torre de Plaza Las Americas
Plaza Las Americas-Suite 1116
San Juan, Puerto Rico 00918-8024

CAPT Claritsa Malave, MD, MPH
Senior Medical Advisor, Region II
Health Resources and Services Administration
150 Chardon Avenue, Room 659
San Juan, Puerto Rico 00918