

# **FUTURE OF HEALTH CARE IN THE INSULAR AREAS: A LEADERS SUMMIT**



**HONOLULU, HAWAII  
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**PRESENTED BY:  
LUIS A. SYLVESTER  
HEALTH POLICY ADVISOR TO THE HONORABLE  
JOHN P. DE JONGH, JR.  
GOVERNOR OF THE US VIRGIN ISLANDS**

# United States Virgin Islands

## ~Overview~



- **Four (4) main islands: St. Thomas, St. Croix, St. John, Water Island and 70 smaller islet and keys**
- **Population: 108,448 residents (U.S. 2007 Census)**
- **60 miles east of Puerto Rico**
- **1, 075 miles south of Miami, Florida**

# United States Virgin Islands

## ~Economy~



- **Tourism accounts for 70% of GDP**
  - **In 2007 - 2,611,251 visitors**
    - ✦ 1, 917,878 cruise passengers
    - ✦ 693,373 air passengers
- **Manufacturing**
  - **Petroleum Refining (HOVENSA) -3<sup>rd</sup> largest in Western Hemisphere on St. Croix**
  - **Textiles**
  - **Electronics**
  - **Pharmaceuticals**
  - **Watch Assembly**

# United States Virgin Islands

## ~Health Facilities~



### V.I. Government Hospital and Health Facilities Corporation operates :

- Roy Lester Schneider Hospital, St. Thomas – (169) bed Acute Care Facility
  - ✦ Charlotte Kimelman Cancer Institute (CKCI)
- Myrah Keating Smith Community Health Center, St. John
- Juan Luis Hospital, St. Croix – (188) bed Acute Care Facility
  - ✦ Cardiac Center will open October 2008
- Department of Health has several public health clinics throughout the Territories
- Two (2) federally qualified Health Clinics run by non-profit corporations

# United States Virgin Islands

## ~Challenges~



- **Healthcare manpower shortage**
- **Funding Constraints**
- **Unavailable and unreliable data collection**
- **Off-island travel for specialty care**
- **No interconnectivity among Territorial facilities**

# ROY L. SCHNEIDER HOSPITAL



- **Joint Commission Accredited**
- **Certified by the Centers for Medicare and Medicaid Services (CMS)**
- **Employs approximately 700 individuals, including agency staff**
- **Provides a wide range of services to meet all of our clients needs**
- **Average daily census for 2008: 62 patients**



# MYRAH KEATING SMITH COMMUNITY HEALTH CENTER



- **Located in Susannaberg on St. John**
- **Emergency Services available 24 hours/ 365 days per year**
- **Outpatient/Clinic Services Available Monday – Friday ( 8am – 8pm)**



# CHARLOTTE KIMELMAN CANCER INSTITUTE (CKCI)



**CKCI provides a comprehensive range of services (radiation oncology, medical oncology services, surgical consultations and support services) in one entity**

- **The Institute is equipped with state-of-the art technology: (Varian-Linear Accelerator, and Siemens- CT scanner, GAMMAMED High Dose Radiation Unit)**
- **The Benjamin Auditorium contains the latest audio and visual technology and telemedicine capabilities**
- **Prostate, Cervical, Skin and other Cancer screenings total approximately 400 persons**
- **Educational seminars are conducted on a variety of cancer subjects including Breast, Prostate, Cervical, Skin, Head, Neck and Nutrition**
- **CKCI has started Prostate Seed Implantation. Improved IMRT (Intensity Modulated Radiation Therapy)**
- **The institute successfully passed in October 2007 the unannounced visit of the Nuclear Regulatory Commission**



# JUAN F. LUIS HOSPITAL



- **Semiautonomous agency governed by its own Board of Directors**
- **Licensed by V.I Department of Health**
- **Accredited by Joint Commission**
- **Certified by CMS**
- **Contracts with all major health insurance companies in USVI**
- **Safety Net hospital**



# TeleHealth

~Connecting Island Health Care~



How telecommunications technology could bring improved patient care and the training of workers in the insular areas

Telecommunications can help improve patient care in the Insular areas through:

- Electronic Health Records
- Telemedicine
- Electronic Billing for improved collections
- Connectivity among hospitals, clinics and private providers (local and stateside)

# TeleHealth

## ~ Electronic Health Records~



**Electronic Health Records (EHR) – allows for the documentation and storage of health data electronically**

**EHR can provide a seamless continuum of care from clinic to Acute facility, from provider to provider, and from island to island.**

- ✦ **Patients who use clinics often use hospital ER**
- ✦ **Patients with co mobility have more than one provider**
- ✦ **Inter-island travel is sometimes necessary for patients to receive care**

# Benefits of EHR



- **Administrative efficiencies through decreased paperwork**
- **Reduction in adverse drug events**
- **Fewer duplicative treatments and tests**
- **Reduction in medical errors**
- **Improved coordination of treatment through timely access of health information**
- **Less reliance on patients memory**
- **Portability of health records**

# Disadvantages of Paper Records



- **Incomplete**
- **Often unavailable**
- **Illegible**
- **Inconsistent**
- **Not interactive**

# Challenges to EHR



- **Privacy Concerns**
- **Inter-operability of systems**
- **Infrastructure Investment (hardware, software and training costs)**

# Remoteness of Insular Areas



- Lack of easy access to specialty care centers (trauma, burn, etc.)
- High cost of travel for health care (Air ambulance travel, lodging)
- Challenge in recruiting specialists
- Unavailability of many advanced health care procedures
- Significant amount of care is received outside of insular areas
- Costs of providing health care are higher

# Staffing Challenges



- **Nursing – Contracts nurses cost 12 million annually**
- **Medical Specialties - Radiologic Technologists, Radiation Therapists, Pharmacists, Medical Technologists and Physical Therapists**
- **Physician Staffing- Pulmonologists, Endocrinologists, Neurosurgeons, and Pediatric Intensivists**

# CIGNA Medical Health Insurance FY2007 GVI Expenditures



	<b>Total Paid \$</b>	<b>%</b>
USVI	\$35,198,420	53.8%
PR	\$1,191,823	1.8%
USA	\$29,051,119	44.4%
<b>Total</b>	<b>\$65,441,362</b>	<b>100.0%</b>

<b>Members Location (zip)</b>	<b>Claims Paid in the US Mainland</b>	<b>% Of Total</b>
USVI	\$24,503,961	84.3%
PR	\$4,739	0.0%
USA	\$4,542,418	15.6%
<b>Total</b>	<b>\$29,051,119</b>	<b>15.6%</b>

# TeleMedicine



Telemedicine refers to the use of various telecommunications by physicians and medical institutions that provide health care to their patients through electronic or digital means

- Allows collaboration between local providers and medical experts across the country
- Decrease the need to move patients off-island
- Enhanced recuperation due to family members availability
- Retention of healthcare dollars in the local economy

# ~Juan F. Luis Hospital Activities~



Our current tele-health/communication activities include the following:

- We use a (PACS) system that allows us to transmit and receive medical information, including x-rays, CT scans, MRIs, etc. to/from facilities worldwide. The JFLH medical providers currently use this PACS to access medical information on their patients within and out of the facility. We are in discussions with mainland radiology "nighthawk" companies that will read/interpret our x-rays, MRIs and CT scans during off-hours when there is no radiologist on site
- We use Meditech as our clinical information system. Through the VIMI e-health initiative, we will be integrating JFLH's Meditech system with the clinical systems from the community clinics and physicians so that patient information will be shared between health care providers and patient information may be accessed whether the patient is in the hospital or in his/her physician's office
- We have the equipment and ability to do tele-conferencing but have not been utilizing it fully because we need additional band-width to enable the system to function effectively. We also have agreements with Cleveland Clinic and other mainland based hospitals to do tele-conferences at JFLH so that JFLH staff can have access to seminars/conferences provided by these institutions.

# ~Roy L. Schneider (RLS) Hospital Activities~



- Continuing education for healthcare providers
- Training of individuals to become healthcare providers

Myrah Keating Smith Community Health Center (MKSCHC) is in the planning stages of implementing its telemedicine services. The health center has collaborated with the Cleveland Clinic, in Florida. Currently, the health center's Administrator and our legal counsel have reviewed the full operation set-up and linkages between both sites and have negotiated a contract of \$88,000 (that spans over a 3 years period).

## **HOW WILL THE VIRTUAL VISIT TAKE PLACE?**

- Telemedicine equipment will be set up at Cleveland Clinic in Florida and MKSCHC in St. John. (Both facilities will use large flat screen monitors and supporting equipment)
- Cleveland Clinic physicians will use sophisticated real-time technology to connect with MKSCHC physicians, nurses, and patients.

## **Virtual Office Specialties**

- Work with Cleveland Clinic Physicians while on-site at MKSCHC
- CC Physicians can track patients' progress
- Digital images can be accessed
- Specialties Offered
  - *Cardiology*
  - *Dermatology*
  - *Advanced Gynecology*
  - *Pediatric Neurology*
  - *Spine perioperative visits*
  - *Adult Psychiatry*
  - *Child Psychiatry*
  - *Rheumatology*
  - *Pathology*
  - *Radiology*
  - *Endoscopy*

# RLS continues



## ACTUAL VIRTUAL VISIT FUNCTION

- **Location A (MKSCHC St. John):** Patient sees and speaks to Cleveland Clinic physician in real-time through secure Virtual-Visit technology.
- **Location B (Cleveland Clinic Florida):** Physician conducts examination, interacts with patient and nurse, and MKS physician, and documents encounter.
- MKS physicians and nurses will utilize telemedicine tools (scope devices), which will be connected to telemedicine computer system and relayed to visual screen where

Cleveland Clinic physicians will visually examine patients in real time.

## Charlotte Kimelman Cancer Institute - Benjamin Auditorium

- The Charlotte Kimelman Cancer Institute has the capabilities to support telemedicine. Currently, Martha and Bennie Benjamin Auditorium can be used for WebEx demonstrations, presentations, audio and video conferences and more, but due to the current network setup and lack of a full time technician to operate the media system in the auditorium, it cannot be fully utilized.

# Conclusion



- **Telecommunication has the potential to bridge the physical distances and the health disparities that exists between the mainland and Insular areas**
- **As we improve the Territories Health Care System we see the potential to pursue opportunities in medical tourism**