



TELENUTRITION for Children with Special Health Care Needs in Southeastern Florida



Mary Hooshmand, RN, MS
Sabrina Candelaria, MPH, RD, LD/N
Sheah Rarback, MS, RD
Sharon Armstrong, MPA
Anne E. Burdick, MD, MPH





Background



GOAL: To develop and implement a public-private community partnership model for telehealth and telemedicine providing pediatric specialty services to Children with Special Health Care Needs in identified remote, rural and medically underserved areas in Southeast Florida CMS Region

- ✓ April 2007- **University of Miami** Departments of **Pediatrics and Telehealth** partnered with Children's Medical Services, Florida Department of Health to provide telenutrition services





Before Telenutrition

- **Pediatric nutrition services were not in existence in these communities**
- **Families of children with special needs were required to travel extensive distances for pediatric nutrition consults**
- **In many situations, CSHCN were not able to receive any nutrition services for their conditions due to hardships**





Our Children & Programs

- **Children's Medical Services-** Title V Program in Florida serving Children with Special Health Care Needs (CSHCN) and their families
 - 12,000 + CSHCN in Southeast Florida region
 - Over 1/3 reside in rural, remote and medically underserved areas
 - The majority of these children have chronic and complex medical and developmental conditions requiring pediatric subspecialty care
 - **1,100+ telehealth visits of which 481 visits (42% of total) were for telenutrition services to a total of 113 CSHCN and their families**





TELE NUTRITION

The Program



- A pediatric Registered Dietitian from the University of Miami is linked to CSHCN and their families in the rural communities at the local CMS clinics.
- The Advanced Registered Nurse Practitioner or Registered Nurse Care Coordinator is onsite with the CSHCN and their family providing the linkage back to the community and medical home.





TELENUTRITION: Reasons for Referral

- **Obesity (49.6%)**
- **Immunodeficiency (22.0%)**
- **Failure to Thrive (13.3%)**
- **Gastrostomy tubes/ feeding issues (8.8%)**
- **Food allergies (1.8%)**
- **Food aversion/ oral hypersensitivity (1.8%)**
- **Metabolic diagnosis (1.8%)**
- **Impaired GI function (0.9%).**





Case Study #1: Obesity



16 year, 5 month old African American female

•Diagnoses:

•Obesity, Sleep Apnea, Pulmonary HTN,
Adenotonsillar Hypertrophy

•Clinical specialties involved: Cardiology & ENT

•Medications: Atenolol

•Visits in Telenutrition clinic:

•6 sessions between July 2007 - July 2008





Case Study #1: Obesity



Anthropometric Index	JULY 2007 (Initial Visit)	March 2008 (3 rd Visit)	JULY 2008 (6 th Visit)
Weight	332 lbs. (150.9 kg)	331 lbs. (150.5 kg)	306 lbs. (139.1 kg)
Height	65 in. (165.1 cm)	65.2 in. (165.7 cm)	65.2 in. (165.7 cm)
Body Mass Index	55.4 kg/m ²	54.8 kg/m ²	50.7 kg/m ²
Net Weight Change	N/A	↓1 lb. ↓0.4 kg	↓26 lbs. ↓11.8kg



Case Study #1: Obesity Changes reported by patient



- **Strict about her nutritional intake**
 - cut down on saturated fats & sugar
- **More water; eliminated juices & soda**
- **Daily physical activity-**
 - walking, dancing, stationary bicycle
- **Stopped snoring at night**
- **Feeling more energetic, less fatigued**





Case Study #2: Enteral Nutrition



10 year, 7 month old African American Male

- **Diagnoses:** Angelman Syndrome, Microcephaly, Seizures, Developmental Delay, Constipation- s/p G-tube, Short Stature
- **Clinical specialties involved:** Neurology, Genetics, Gastroenterology, Cardiology
- **Medications:** Keppra, Miralax, Mineral Oil, & MVI
- **Visits in Telenutrition clinic:**
 - 5 sessions between July 2007 - July 2008





Case Study #2: Enteral Nutrition



Changes made through Telenutrition

- **Assessment indicated need for formula change**
 - **Pediasure with Fiber changed to Peptamen Junior with Prebio (elemental, prebiotic fiber blend)**
- **Worked with mother to arrange feeding schedule of PO solids and partial G-tube feeds**
- **Recommended referral for oral-motor therapy through Speech Pathology to assist with transition to PO feeding**







Case Study #2: Enteral Nutrition



Anthropometric Index	July 2007 (Initial Visit)	January 2008 (3 rd Visit)	July 2008 (5 th Visit)
Weight	56.1 lbs. (25.5 kg)	54.6 lbs. (24.8 kg)	58.7 lbs. (26.7 kg)
Height	50 in. (127cm)	50 in. (127 cm)	51.5 in. (130.8 cm)
Body Mass Index	15.8 kg/m ²	15.4 kg/m ²	15.6 kg/m ²
Net Weight Change	N/A	↓1.5 lb. ↓0.68 kg	↑2.6 lbs. ↑1.18kg



TELENUTRITION: Implications for the Future

- Telenutrition offers a viable option for CSHCN in rural communities in need of nutrition services 
- Telenutrition may be an effective mode for addressing obesity in traditionally hard to reach communities
- Need for further research initiatives... opportunity for research and practice to partner together to develop evidence-based guidelines addressing public health issues across traditionally 'hard to reach' and vulnerable populations 





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- **Contact Information**



Mary Hooshmand, RN, MS

Mary_Hooshmand@doh.state.fl.us

Sabrina Candelaria, MPH, RD, LD/N

SCandelaria@med.miami.edu





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