

## UA Greece Initiative 2015

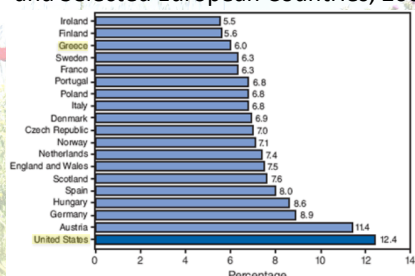
**Memorie M. Gosa, PhD, CCC-SLP, BCS-S**  
 Pediatric Speech-Language Pathologist  
 Board Certified Specialist in Swallowing & Swallowing Disorders  
 Assistant Professor, Department of Communicative Disorders  
[memorie.gosa@ua.edu](mailto:memorie.gosa@ua.edu)

## Research & Clinical Interests



- Department of Communicative Disorders
- Clinical speech-language pathologist for 10 years at LeBonheur Children's Hospital in Memphis, TN
- Specializing in pediatric feeding and swallowing disorders- diagnosis and management
- Research has focused on establishing the efficacy and reliability of diagnostic and treatment methods for infants and children with dysphagia

## Prematurity: Percentage of Preterm Births\* --- United States and Selected European Countries, 2004



<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm550a6.htm>

## Prematurity

- Greece: Rate of preterm births in 2008 was **9.6%** (Barouti, G., Mousiaki, A., Mesogitis, S., Contal, C., & Antsaklis, A. (2013). Preterm birth trends in Greece, 1980-2008: a rising concern. *Acta obstetrica et gynecologica Scandinavica*, 192(5), 575-582)
- USA: Rate of preterm births in 2012 was **11.5%** (<http://www.marchofdimes.org/news/as-preterm-birth-rate-drops-to-15-year-low.aspx>)



<http://www.setonhospital.com/resource-center/articles/join-the-march-of-dimes-in-spreading-awareness-about-premature-birth>

## Prematurity

Typically results in issues with:

- Breathing
- Heart
- Brain
- Temperature control
- GI → predisposition to NEC

(<http://www.mayoclinic.org/diseases-conditions/premature-birth/basics/complications/con-20020050>)

## Long Term Effects of Prematurity

- Cerebral palsy
- Impaired cognitive ability
- Visual impairment
- Hearing loss
- Dental problems
- Behavioral and psychological problems
- Chronic health concerns

(<http://www.mayoclinic.org/diseases-conditions/premature-birth/basics/complications/con-20020050>)

## Prematurity

- Immaturity and long term effects are implicated in the presence of feeding and swallowing issues
- Inability to safely consume adequate nutrition is often the reason infants remain in the NICU after they are otherwise stable and ready for discharge home

(Dodrill, P. (2011). Feeding difficulties in preterm infants. *Infant, Child, and Adolescent Nutrition*, 3(6), 324-331)

## Questions

- What is the average length of time taken to achieve full oral feeding by preterm infants
- What co-morbidities affect length of time taken to achieve full oral feeding by preterm infants



## Literature

Dodrill, P., Donovan, T., Cleghorn, G., McMahon, S., & Davies, P.S.W. (2008). Attainment of early feeding milestones in preterm neonates. *Journal of Perinatology* 28(8), 549-555.

- Large, tertiary care hospital in Australia (Level II and III nursery)
- N=735 (427)
- Low GA @ birth & high neonatal morbidity significantly correlated with increased transition times
- Both variables significant risk factors for a delayed GA at attainment of oral feeding

## DCH: Tuscaloosa & Northport

- Level III NICUs- transfer requirement for surgical needs
- 3,103 infants delivered
- 8% of infants born were admitted to NICU
- Would this population of preterm infants demonstrate the same level of morbidity as the cohort from Australia?
- Would this population of preterm infants require the same amount of time to transition to full oral feedings?
- At what age does this cohort of preterm infants reach full oral feeding?

## Greece

- Dr. Michael Chourdakis, MD MPH, PhD- Lecturer of Medical Nutrition, School of Medicine, Aristotle University of Thessaloniki
- Dr. Vasiki Drossou-Agakidou, MD- Head of the 1<sup>st</sup> Clinic of Neonatology, Hippokration Hospital of Thessaloniki

## Hippocrateion Hospital, Thessaloniki Greece

- Largest general state hospital in Greece and the Balkans
- NICU, Level III, 50 bed unit
- 700-750 admissions per year (critically ill and premature newborns)



### Achievement of Oral Feeding Project

- IRB approval from UA & DCH, Aristotle University & Hippocrateion Hospital
- Data on participants is being collected through retrospective chart review
- All neonates born <37 weeks GA who were admitted to DCH (Regional & Northport) and Hippocrateion Hospital over a 12-month period
- Neonates excluded if they expired or were transferred to another facility before achieving full oral feeding
- BW, GA, GA at discharge, Weight at discharge, and all information relating to the number and type of medical comorbidities is being collected

### Achievement of Oral Feeding Project

- Degree of neonatal morbidity being determined with the Morbidity Assessment Index for Newborns (MAIN)
- 47 Binary test items- scored from information gleaned in chart review
- Test items weighted to reflect the severity of the medical condition they relate to
- Overall MAIN score calculated by totaling weighted scores from each of the test items scored positively
- Higher the score, the greater degree of overall morbidity

### Achievement of Oral Feeding Project

Collected information will be used to answer questions

1. What is the average length of time taken to achieve full oral feeding by preterm infants
2. What co-morbidities affect length of time taken to achieve full oral feeding by preterm infants

At individual facilities & then comparatively between facilities

### Timeline

- Discussion of research line in May 2015 with Greece collaborators
- Initiation of research in August 2015
- Expect to finish data collection in March 2016
- Analysis of individual results April 2016
- Hopeful for additional meeting between collaborators in 2016 to examine between group differences and similarities
- Write up and dissemination of information Fall 2016

