



# NAHN Miami Chapter Presents Muevete USA™ on Cinco de Mayo Day to Reduce Obesity in Children of Migrant Workers

Yolanda, Nitti, MSN, RN, Patricia R. Messmer, PhD, RN-BC, FAAN Gianna Santos, DNP, ARNP, NP-C, Yamina Alvarez, DNP, RN Roxana Orta DNP, ARNP, AP-BC, Guillerno Valdes, DNP, RN-BC Ann Graziotti, MSN, RN, Kathleen Muniz, MSN, RN Marie O Etienne, DNP, ARNP, PLNC & Elisa Rodriguez, DNP, ARNP Benjamín León School of Nursing, Miami Dade College Nora Hernandez-Pupo, MSN, RN Barry University

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### **Background**

- Florida ranks 35<sup>th</sup> in overall prevalence with 33.1% of children considered either overweight or obese (ww.nichq.com)
- Hispanic children are at a greater risk for obesity with \u00e7prevalence with 34.3% overweight/obese in Florida and 41% nationally.
- In Miami-Dade County, Florida 20% of children are obese, especially boys. Obese children are more likely to develop Diabetes Type 2 and cardiovascular diseases (RWJ & NCSL, 2012).
- The Miami Chapter of the National Association of Hispanic Nurses (NAHN) designated as one site for NAHN Muevete USA™ Project,
- NAHN Muevete USA™ Project- an educational program developed to reduce childhood and adolescent obesity throughout the United States, funded by the Coca-Cola Foundation (Millan, 2012).
- Kilpatrick, K (2015). Child obesity in Mexico
   http://projects.aljazeera.com/2015/08/mexico-obesity/
- Lanpher, K & Rydoff (2015) 2<sup>nd</sup> part The Amaranth Solution

### Morbid Obese Child in Mexico



## Amaranth, an ancient grain- answer to Mexico's obesity solution





# The Muevete USA event at Miami Dade College Kendall Campus



## The Muevete USA event was held "Wild Things Happen Summer Camp" in Kendall, Florida



#### Purpose of the Project

- To demonstrate awareness and understanding of Nutrition Facts Labels
- To identify daily portions of fruits, vegetables, grains, dairy and protein needed each day
- To describe importance of incorporating daily physical activity and exercises
- To engage children doing exercise with a Physical Fitness instructor to Hip Hop Spanish music or other exercises and games



## Methodology

- A descriptive exploratory research design was used.
- The children completed five pre and post tests with four responses in most cases; otherwise it was a yes or no answer.
  - 1st test "My Plate"
  - 2nd test "Food Label"
  - 3rd test "Physical Activity and Exercise"
  - 4th test "Healthy Snacks"
  - 5th test "Goal Setting"
- Content validity was established.

#### **Implementation**

- Prior to the event, a nutrition seminar was presented by a MDC certified nutritionist to prepare the nursing students on the five lessons and assist them in creating their storyboards.
- Community Health ASN & BSN students (130)
   participated in Muevete, receiving 10 community hours
   for a two hour nutritional seminar, a one hour
   orientation and the seven hour Muevete event.
- The children were divided into 12 groups with two students/group; taking food cutouts and making plates with appropriate portions, nutritional requirements, reading labels.
- MDC School of Nursing NAHN officers, members and community health students collaborated with MDC Continuing Education & Professional Development who offers a summer camp.

## **Implementation**

- Seven nursing faculty and three physical fitness instructors facilitated the event while two certified physical fitness instructors presented the HIP HOP fitness session.
- Each student made two posters outlining nutrition aspects and obesity health risk factors.
- One ASN student with an Associate Degree in Fine Arts constructed two life-like cardboard dolls (7' male chef and 5'8" waitress) with "Choose My Plate gov" and food cutouts, outlining necessary meal portions, addressing Muevete objectives.

#### Results

- The 594 children (5-12), were divided into 12 groups with two students per group.
- The children took the food cutouts and made plates with appropriate portions, nutritional requirements, reading labels.
- Most were complete, even with younger children progressing to kindergarten; They were able to understand all the information requested.
- When small flags from different countries were distributed, the children identified their native country.

## Findings from MDC Kendall Campus

- 1st year 130 children participated in 2013
  - ages 5-12; males 50%, females 50%; mostly Hispanics
  - All mean scores increased from pre-to posttest
  - 1<sup>st</sup> test 3.13 to 4.67 3<sup>rd</sup> test 3.50 to 4.55
  - 2<sup>nd</sup> test 2.94 to 3.72 4<sup>th</sup> test 3.50 to 4.13 5<sup>th</sup> test 2.96 to 3.52
- 2nd year 125 children participated in 2014
  - ages ranged 4-15 mean= 8 years, kg-8th grade
  - males-62%, females 38%;
  - Hispanic 55%, White 30%; Black 9% Asian/other 6%;
  - pretest-posttest scores increased from 9.40--10.68, 13.62% change
- 3<sup>rd</sup> year 128 children participated in 2015
  - ages ranged 4-15 mean= 8.51 years, kg-8th grade
  - males- 59%, females 41%;
  - Hispanic 74%, White 20%; Black 5 % Asian/other 1%;
  - pretest-posttest scores increased from 9.77--11.81, 42% change

## Findings from Homestead, Florida

- 2nd site 102 children at Homestead, 1<sup>st</sup> site participated in 2014
  - ages ranged 4-15 mean= 9 years;
  - males- 54% females 46%.
  - Hispanic 41%, Black 38%, White 13%, Asian/other-8%
  - pretest-posttest scores increasing from 8.33-9.45, a 13% change.
- 2<sup>nd</sup> site 109 Migrant children at Homestead 2nd site participated in 2015
  - ages ranged 5-12 mean= 8.51 years;
  - males- 65% females 41%.
  - Hispanic 41%, Black 36%, White 22%, Asian/other-1%
  - pretest-posttest scores increasing from 9.77-11.81, a 21% change
- Over 594 children participated from 2013-2015, scores increasing in
  - My Plate
  - Food Label
  - Physical Activity & Exercise
  - Healthy Snacks and
  - Goal Setting

## Findings/Implications

- Community Health ASN & RN-BSN students (130) participated in five Muevete projects at three different sites over three years, receiving 10 community hours.
- Aerobic exercises were provided with hand washing teaching provided by Federal Drug Administration (FDA).
- Parents received nutrition classes.
- Children with pretest-posttest scores increased in all sites over the three years
- The most missed question: "How much Sodium is in this entire food product"? Although Sodium was 440mg it was for 4 servings so the correct answer was 1760 mg.

#### Conclusion

- The children loved the program as they received healthy snacks and exercised.
- They understood the need to manage childhood obesity according to pre/post test results.
- The implementation of this program helped to reduce the number of Hispanic and other children with obesity.
- This should decrease the level of obesity in Hispanics and reduce the associated costs.















## Camp in Homestead, Florida



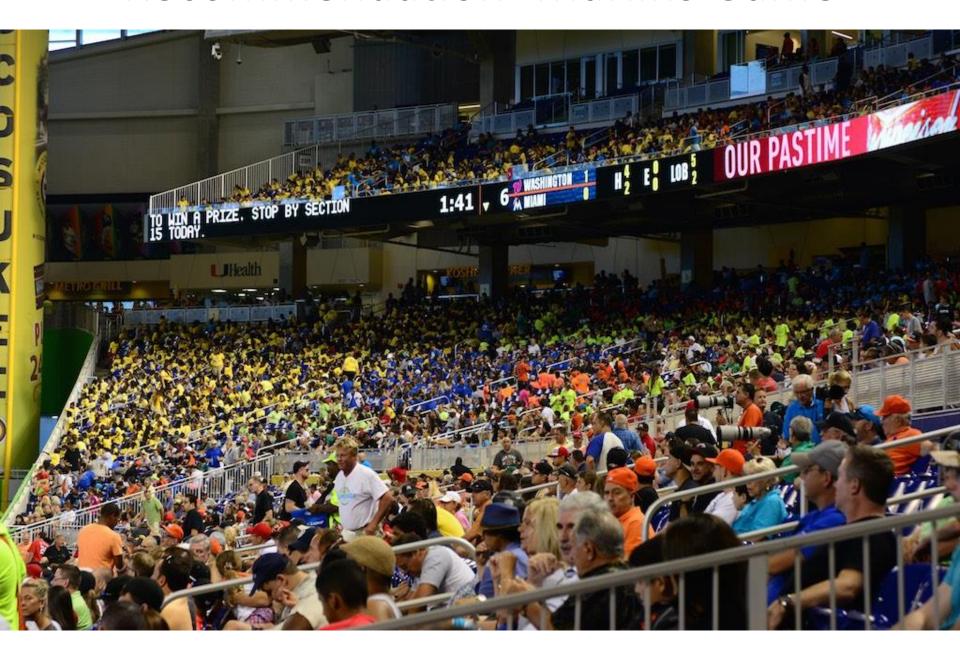
## Zumba







#### Recommendation- Marlins Game



#### References

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- Knop, C. et al (2015). Extremely obese children respond better than extremely obese adolescents to lifestyle interventions *Pediatric Obesity 10(1), 7-14.*
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- Mexico tries taxes to combat obesity http:online.wsj.com/news/articles/SB10001424052702304864504579141462546 165155



http://youtu.be/Z4h07B-WLsY

#### Questions?