Count Me In, An mHealth App, Promotes Nutrition and Safe Feeding for Children with Disabilities

ICED 3rd International Conference on Disability and Development
5 November 2019

Kate Miller, MS, CCC-SLP, CLC
Feeding & Disability Specialist

©2019 SPOON
Transform feeding and nutrition for children living without their families and children with disabilities
Interact throughout the lifecycle

Nutrition

Disability

©2019 SPOON
Promoting Nutrition and Safe Feeding for Children with Disabilities

- **Strengthen** health services with specialized nutrition and feeding interventions
- **Count** children with disabilities
- **Expand access** to existing nutrition services
✓ Web-based application accessed via phone, tablet or computer

✓ Modules for assessing malnutrition and feeding

✓ Built-in child-specific care plans, reports, and training tools
Case Study

- Faith
- 7 years, 9 months
- Cerebral Palsy
- Fed by grandmother
Mealtime: Screening

Ask caregivers what tools are used at mealtime

Please choose all that apply

- Bottle
- Spoon/fork
- Cup
- Fingers

Ask caregivers what textures are offered to child during mealtime

Please choose all that apply

**LIQUIDS**

- Formula
- Thin liquids (not formula)

**FOODS**

- Puree
- Mashed
- Soft & bite-sized
- Regular foods
Feeding Difficulties

• Difficult to feed
• Loses food
• Long mealtimes
• Not yet chewing
• Frequent coughing and choking
Mealtime: Observing Positioning

SPECIAL INSTRUCTIONS
Observe caregiver offering liquids from a cup.

How are child’s hips positioned?
Select the most appropriate image by tapping it

How is child’s trunk positioned?
Select the most appropriate image by tapping it

How is child’s head positioned?
Select the most appropriate image by tapping it
Positioning for feeding

- Body reclined
- Trunk twisted, leaning to one side
- Head tilted
- Little support
Small changes make a big difference

- Improved body position
- Stable
- Upright
- Specialized feeding techniques
- Coaching
Growth Recommendations

You are here: Orfanato Miraflores  >  José Maldonado (Male; 3y 9m)

REFERRALS

Refer to pediatrician immediately for further evaluation of weight loss.

INTERPRETATIONS

WEIGHT

- Slowing down
  - Child has lost weight since last assessment.
  - Weight loss could be caused by poor food intake or an illness. Learn more

HEIGHT

- Normal for age
  - Child appears to be growing normally in
**Anemia Recommendations**

**INTERPRETATIONS**

- **Hb:** 10.7 g/dl
  - **Mild Anemia**

  - Child has mild anemia. This can be due to low iron.
  - Give supplements for 1 month (see below).
  - Follow food recommendations (see below).
  - Retest hemoglobin in 1 month to confirm if anemia is caused by low iron.

**RECOMMENDATIONS**

**Supplements**

- **Form**
  - Choose a supplement form that is appropriate for child:
    - Liquid like drops, tonic, syrup

**Food**

- Offer foods high in iron at least once a day. Learn more
- Pair plant-based foods rich in iron with fresh foods high in vitamin C. Learn more
Preliminary Count Me In Data
## Profile of Children with Disabilities in *Count Me In*

### AGE

- **Mean age**: 6.25 years
- **Children under 5 years**: 42%
- **Age range**: 1 mo – 17 yrs

### NUTRITIONAL STATUS

- **Underweight**: 72%
- **Stunting**: 75%
- **Wasting**: 17%
- **Anemia**: 53%

©2019 SPOON
70% have feeding difficulties

- 19% Coughing/choking
- 55% Difficulty positioning
- 13% Long feeding duration
- 48% Totally dependent >12m
- 27% Still taking bottle >18m
CHILDREN WITH SPECIAL NEEDS ARE . . .

- 4.7 times more likely to report coughing/choking during feeding
- 2.5 times more likely to have a positioning problem
- 2.4 times more likely to be wasted
- 2.2 times more likely to be underweight
- 1.8 times more likely to use a bottle after 18 months of age
- 1.6 times more likely to be stunted
Malnutrition is Trending Down

- Malnourished with > 1 screening
- Malnourished as of last screening

% of Children

- Anemia
- Wasting
- Stunting

©2019 SPOON
Establishing a Path to Positive Health Outcomes

**Count Me In**

- builds structure and process to address nutrition and feeding
- generates individualized clinical recommendations
- contributes data
- promotes inclusion and access to services
THANK YOU!

Acknowledgements:
Zeina Makhoul, PhD, RD
Nutrition Scientist

Jon Baldivieso
Technology Program Manager

www.spoonfoundation.org