



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

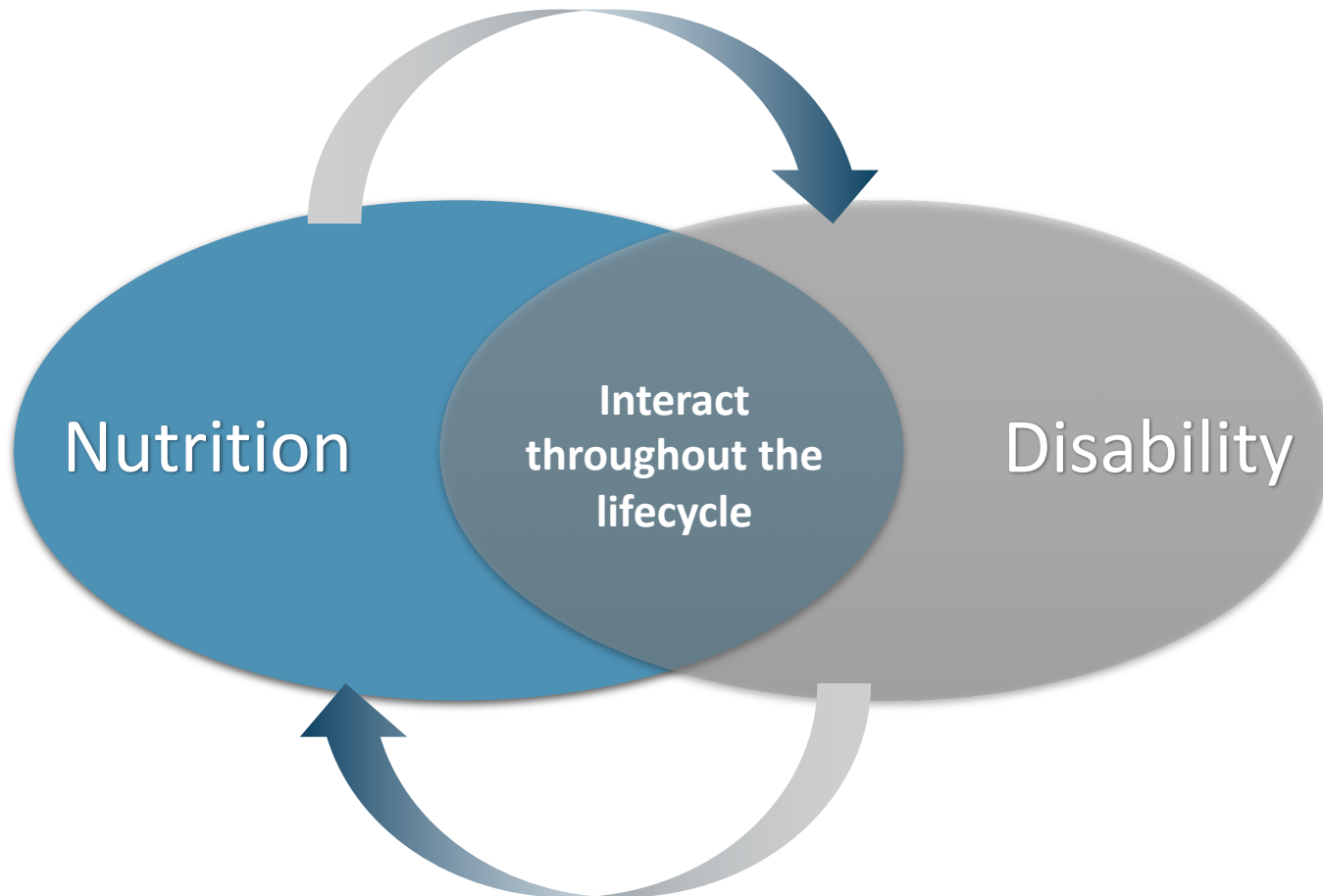
ICED 3rd International Conference on Disability and
Development
5 November 2019

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





**Transform feeding and
nutrition for children living
without their families and
children with disabilities**



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

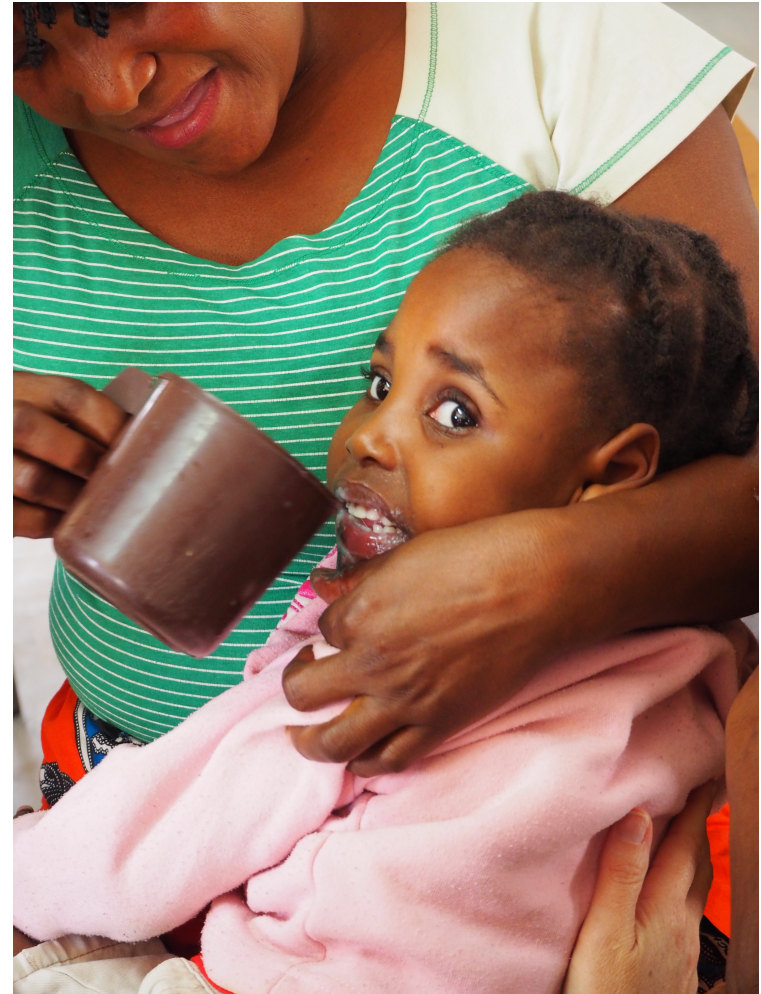
CountMeIn

- ✓ 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

CountMeIn

Project ▾ Site ▾ Account ▾

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

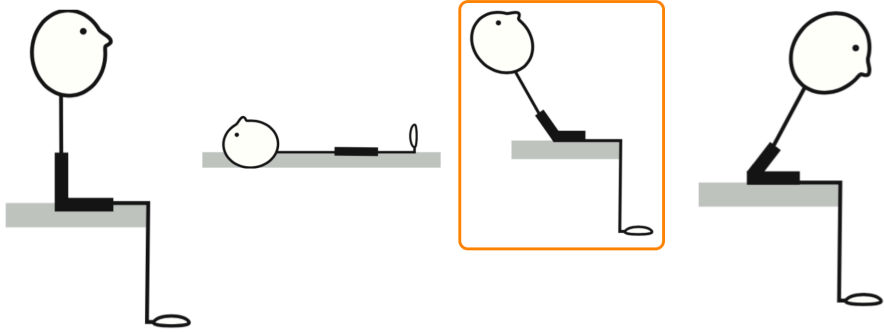
- Difficult to feed
- Loses food
- Long mealtimes
- Not yet chewing
- Frequent coughing and choking

Mealtime: Observing Positioning

CountMeIn Project Site Account

SPECIAL INSTRUCTIONS
Observe caregiver offering liquids from a cup.

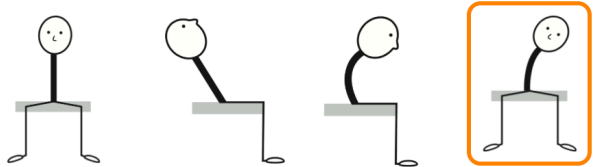
How are child's hips positioned?
Select the most appropriate image by tapping it




CountMeIn Project Site Account

SPECIAL INSTRUCTIONS
Observe caregiver offering liquids from a cup.

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





©2019 SPOON

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

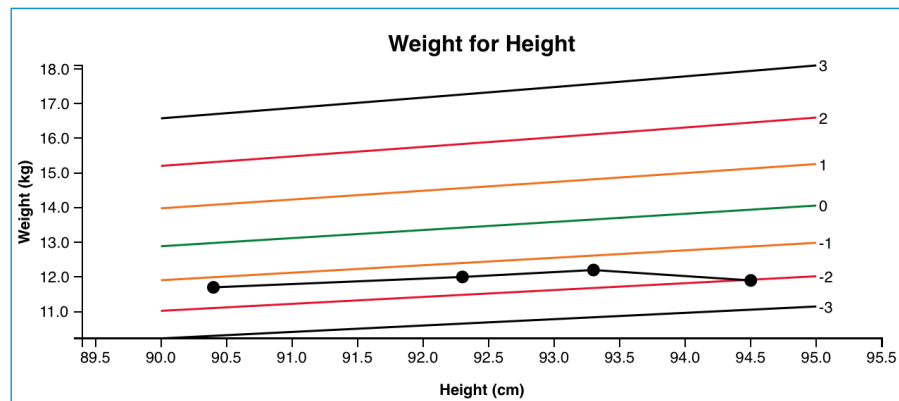
Refer to pediatrician immediately for further evaluation of weight loss.

INTERPRETATIONS

WEIGHT

Slowing down

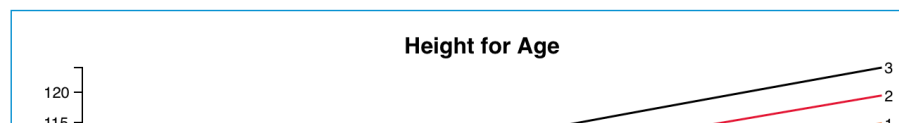
- Child has lost weight since last assessment.
- Weight loss could be caused by poor food intake or an illness. [Learn more](#)



HEIGHT

Normal for age

- Child appears to be growing normally in



Anemia Recommendations

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

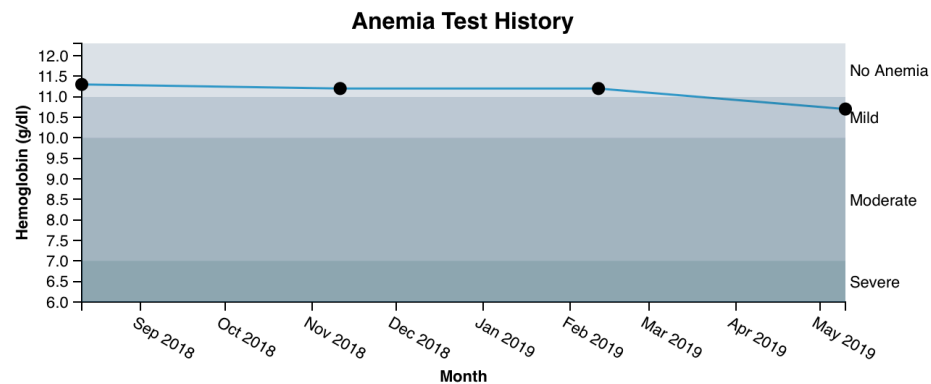
INTERPRETATIONS

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.

[Learn more](#)



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*

224
children

AGE

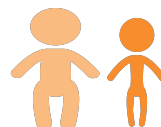
Mean age
6.25 years

Children under 5 years
42%

Age range
1 mo – 17 yrs

NUTRITIONAL STATUS

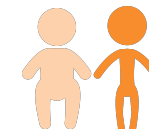
Underweight
72%



Stunting
75%

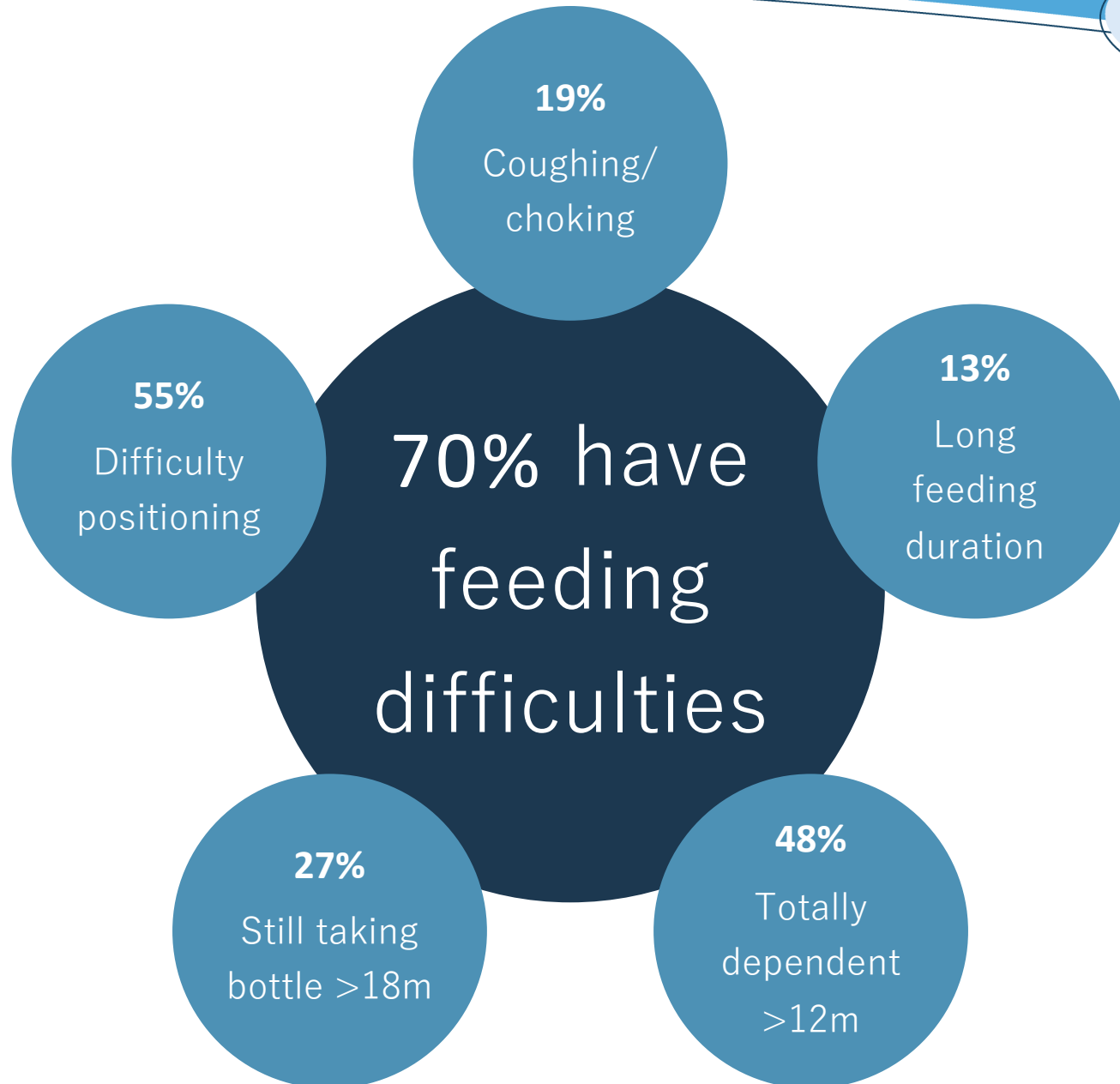


Wasting
17%



Anemia
53%

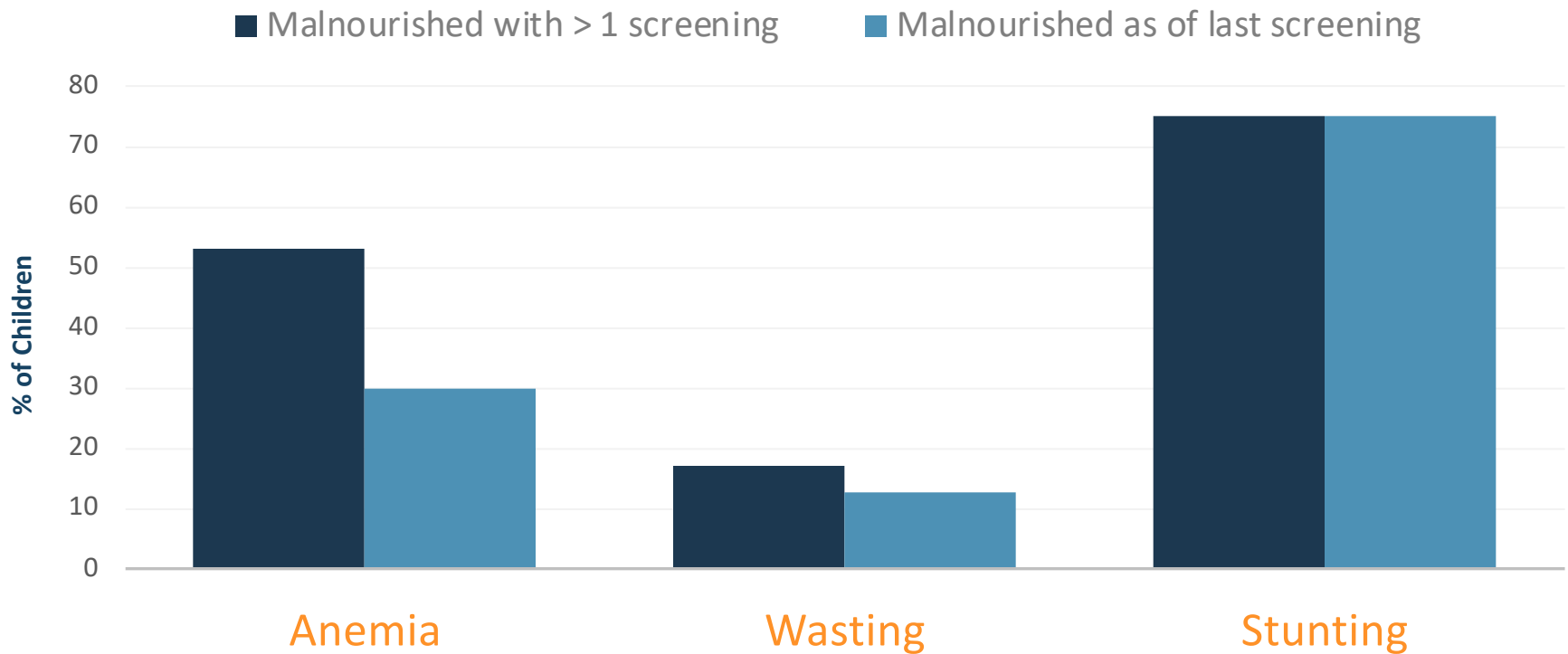




CHILDREN WITH SPECIAL NEEDS ARE...

- **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



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

