CRECIENDO SANOS

Niños Sanos:
Early Childhood Health and Development Program

Manual for the Community Health Nurse

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Introduction

Creciendo Sanos (“Growing Up Healthy”) was designed to include an integrated approach to early childhood health and development – combining a series of neonatal home health visits, community group health visits, and mother-child care groups to enhance the health and development of children from birth to three years of age. The program starts with three neonatal home health visits by community health workers in the first month of life (birth, 2 weeks, and 1 month) to examine neonates, provide appropriate referrals for sick newborns, and screen for maternal depression. Small group health visit talks then occur when the child is 6-9 months, 12-birth 15 months, 24-27 months, and 36-39 months of age to teach, promote, and reinforce caregiver knowledge of age-appropriate topics including:

- Anticipatory guidance
- Good hygiene and hand washing
- Home management and recognition of common illnesses (including fever, cough, and diarrhea)
- Timely immunizations
- Safety and injury prevention
- Responsive parenting techniques (talking, reading, playing, and praise)

These visits also include growth monitoring and promotion and developmental screening. In addition to the health visits, monthly mother-child interactive care groups start at two months of age and continue until the child reaches three years. These groups use participatory learning to promote stimulation techniques, provide peer support for the mothers, reinforce caregiver knowledge of health topics, and perform growth monitoring and promotion.
How to Use the Flipcharts

During the first three years of life, children rely on their parents to help them stay healthy. Parents should provide children with the nutritious foods they need to grow, clean water to drink, good hand washing to prevent diarrhea and other infections, and a safe home environment. Parents should do lots of talking, singing, playing, and praise to help children learn to speak and develop. Parents also need the knowledge to care for their children when they get sick. We are introducing mothers to this information through a series of flipcharts to be used at individual home health visits (birth, 2 weeks, and 1 month) and group health visits in the community (6-9 months, 12-15 months, 24-27 months, and 36-39 months). The material in the flipcharts will also be reinforced during the care group sessions.

When reviewing the flipcharts with a mother, do not simply read the material on the back of the page. This material is instead meant to be a guide for you. Start each section with a question to engage the mother (sample questions are provided in the flipcharts). Cover the material noted on your instruction page as part of a conversation with the mother. Introduce games and role playing as suggested in the chart. Ask the mothers questions about what they have learned. Remember to praise the mothers often. When they contribute to the group, tell them “Good job” or thank them for sharing. Make the session as interactive and interesting as possible. This will take practice, but you will do a great job. Have fun!
Child Registration and Inscription

- Complete the Child Registration form in REDCap at the child’s first visit (regardless of the age of the child). Also complete the Child Inscription form on the mobile ODK app. Copies of these forms are included in Appendix E.

- Create the child’s birth registry ID number (código) by adding an a, b, c, etc. after the last number of the mother’s birth registry ID, depending on whether the child is her 1st, 2nd, 3rd, etc. being added to the program (if you are registering multiple children at one time, start with the oldest as “a”). For example, if this is the mother’s first child enrolling in the program, add an “a” after the mother’s birth registry ID to create the child’s birth registry ID (example: A10140001a). If this is her 2nd child enrolling in the program, add a “b” after the mother’s birth registry ID to create the child’s ID (example: A10140001b).

  CAUTION: It is extremely important to get this ID correct each and every time you enter it. This ID is how we follow the children over the course of this program. Even one letter or number wrong will cause the ID to not match the child’s record. Without the correct ID, we cannot tell which children have attended the different visits, and the information collected will not be useful.

- If the mother has not been previously enrolled in the birth registry and does not have a birth registry ID, you will need to create a unique ID for the child. You will do this in a similar way to how you create the mother’s ID, except that you will switch the position in the ID of the month and year. Start with a letter to indicate the community (beginning with A), 2 numbers to indicate the year, 2 numbers to indicate the month, and then 4 numbers specific to that child, beginning with 0001. For example, the first child without a mother previously enrolled in the program who is from Chiquirines and is being registered in October 2014 would be identified as follows: A14100001.

- Start the Child Tracking Form for each child during the child’s initial visit. This is a paper form and will be an important way for you to track the child’s progress in the program and to ensure that the child does not miss any scheduled health visits or care group sessions. Keep this form at the front of the child’s record and add the date of each future visit after it takes place. A copy of this form is included in Appendix E.
Start a Growth Chart Card for the child. Enter the child’s information on the front page of the card. You should also write the child’s Creciendo Sanos ID on the front of the card. Explain to the mother that the growth chart is an important way for us to monitor if the child is getting enough food and is growing well. Place the growth chart in a plastic cover to help protect it. Instruct the mother to keep it in a safe place so that you can use it to follow the child’s growth during the next three years. Instruct her to bring this chart to every visit.

After completing these forms, you will now need to complete the appropriate visit and visit form for the child, depending on the child’s age. For example, if the child is 2 days old, you would now complete the Birth Visit. If the child is 1 month old, you would now complete the 1 Month Visit. If the child is 2 months old, you would now complete the Care Group Visit.
Child Visit #1

★ Birth Visit (1 - 3 days of age)
★ Individual home visit
★ Supplies to bring: flipchart, scale and rope, length board, measuring tape, light source, mobile phone, paper forms and writing utensil (REDCap registration, child tracking, and referral forms)

☐ Check the infant for neonatal danger signs and mark whether these signs are present or not on the Birth Visit form in ODK. Make sure to wash your hands with soap and water (or antibacterial hand sanitizer) in front of the mother before you examine the baby. Refer the infant immediately to the clinic or hospital and complete the paper referral form if any of the following danger signs are present. Help the mother arrange transportation if needed, and stay with the mother until she leaves for the hospital or clinic if possible.

- Fast breathing or severe chest in-drawing
  - Count how many times the infant breathes for 1 minute (infant must be calm and not crying). It may help to place your hand on the infant and feel the respirations as you count. If the infant is breathing more than 60 breaths/minute, recount the respirations for another minute. If the infant is still breathing more than 60 breaths/minute when you recount, he needs to be referred.

- Convulsions
  - A convulsion is the uncontrolled shaking of the baby’s body or the repetitive and uncontrolled movement of a part of the baby’s body. Refer the infant if the mother gives any history of a convulsion or you observe the infant having a convulsion.

- No movement
  - If the baby does not move on his own or moves only when gently stimulated by you (by rubbing his back or tapping the soles of his feet), he needs to be referred. If the mother is concerned that the infant has not
been moving on his own and the infant is sleeping, ask the mother to wake him so that you can test his movement.

- **Not feeding well**
  - Refer the infant if the mother reports that he is not latching or sucking effectively and he is breastfeeding < 8 times/day and having < 6 wet diapers/day.

- **Feels too hot or too cold**
  - Using the back of your hands, compare the temperature of the infant’s abdomen to your forehead. These should be similar temperatures. You can also feel the infant’s feet. Refer the infant if he feels either too hot or too cold. If the infant is bundled with lots of clothes, you can remove these first and allow the infant to cool for 15 minutes to get a more accurate temperature.

- **Yellow palms and soles of feet**
  - Refer the infant if he has yellow colored palms and soles of his feet.

- **Umbilical stump is red or draining pus**
  - Refer the infant if the skin around the umbilical stump is red around the entire stump and/or if the stump is draining pus.

If the child has been referred for any of the above danger signs, return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

If the child has been referred for any of the above danger signs, you will most likely be unable to complete the rest of the Birth Visit. Complete any unfinished parts of the visit when you follow-up at a later date with the family.

☐ Complete the Postpartum Visit of the Birth Registry.

☐ Complete the Birth Visit form in ODK during the visit.
☐ Complete the EPDS (Edinburgh Postnatal Depression Scale) questions with the mother. These questions are located on the Birth Visit form in ODK.

- If the mother scores ≥ 12 or answers that she has had thoughts of harming herself (question 10), this indicates a significant concern for maternal depression. Please refer the mother to the clinic (complete the referral form).
- If the mother scores ≥ 12, please return to see the mother 1-2 times per week until her score improves to < 12. Repeat the EPDS questions at each follow-up visit and complete a Follow-up Visit form in ODK at that time. Once the mother’s EPDS score is < 12, you no longer need to follow-up.

☐ Review the Neonatal Flipchart with the mother.

- Check how the mother is breastfeeding. Watch her breastfeed and examine her breasts. Refer the mother to the health post or clinic if she is having difficulty breastfeeding and either of her breasts are tender and red (complete the referral form).
- If the mother has been referred, return within 1-2 days to follow-up. Complete a Follow-up Visit form in ODK at that time.

☐ Weigh the child and measure the head circumference and length (see appendix for instructions on weighing and measuring children).

- Plot the child’s weight on the growth chart. Explain to the mother that the growth chart is an important way for us to monitor if the child is getting enough food and is growing well. Place the growth chart in a plastic cover to help protect it. Instruct the mother to keep it in a safe place so that you can use it to follow the child’s growth during the next 3 years. Instruct her to bring this chart to every visit.
- If there is a birth weight recorded, plot this on the growth chart as well. If the birth weight is in pounds and ounces, you will need to convert this to kilograms. First, divide the ounces by 16 and add this number to the total pounds to get the weight in pounds. Then divide the weight in pounds by 2.2 to get the weight in kilograms.
Example: 7 pounds 8 ounces
- 8 ounces ÷ 16 (pounds/ounce) = 0.5 pounds
- 7 pounds + 0.5 pounds = 7.5 pounds
- 7.5 pounds ÷ 2.2 (kilograms/pound) = 3.4 kilograms

Make sure to record the date of the visit on the Child Tracking Form after the visit has been completed.
Child Visit #2

★ 2 Week Visit (between 2 – 4 weeks)
★ Individual home visit
★ Supplies to bring: flipchart, scale and rope, length board, measuring tape, light source, mobile phone, paper forms and writing utensil (REDCap registration, child tracking, and referral forms)

☐ Check the infant for neonatal danger signs and mark whether these signs are present or not on the 2 Week Visit form in ODK. Make sure to wash your hands with soap and water (or antibacterial hand sanitizer) in front of the mother before you examine the baby. Refer the infant immediately to the clinic or hospital and complete the paper referral form if any of the following danger signs are present. Help the mother arrange transportation if needed, and stay with the mother until she leaves for the hospital or clinic if possible.

- Fast breathing or severe chest in-drawing
  - Count how many times the infant breathes for 1 minute (infant must be calm and not crying). It may help to place your hand on the infant and feel the respirations as you count. If the infant is breathing more than 60 breaths/minute, recount the respirations for another minute. If the infant is still breathing more than 60 breaths/minute when you recount, he needs to be referred.

- Convulsions
  - A convulsion is the uncontrolled shaking of the baby’s body or the repetitive and uncontrolled movement of a part of the baby’s body. Refer the infant if the mother gives any history of a convulsion or you observe the infant having a convulsion.

- No movement
  - If the baby does not move on his own or moves only when gently stimulated by you (by rubbing his back or tapping the soles of his feet), he needs to be referred. If the mother is concerned that the infant has not
been moving on his own and the infant is sleeping, ask the mother to wake him so that you can test his movement.

- **Not feeding well**
  - Refer the infant if the mother reports that he is not latching or sucking effectively and he is breastfeeding < 8 times/day and having < 6 wet diapers/day.

- **Feels too hot or too cold**
  - Using the back of your hands, compare the temperature of the infant’s abdomen to your forehead. These should be similar temperatures. You can also feel the infant’s feet. Refer the infant if he feels either too hot or too cold. If the infant is bundled with lots of clothes, you can remove these first and allow the infant to cool for 15 minutes to get a more accurate temperature.

- **Yellow palms and soles of feet**
  - Refer the infant if he has yellow colored palms and soles of his feet.

- **Umbilical stump is red or draining pus**
  - Refer the infant if the skin around the umbilical stump is red around the entire stump and/or if the stump is draining pus.

- If the child has been referred for any of the above danger signs, return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

- If the child has been referred for any of the above danger signs, you will most likely be unable to complete the rest of the Birth Visit. Complete any unfinished parts of the visit when you follow-up at a later date with the family.

☐ Complete the 2 Week Visit form in ODK during the visit.
Complete the EPDS (Edinburgh Postnatal Depression Scale) questions with the mother. These questions are located on the 2 Week Visit form in ODK.

- If the mother scores ≥ 12 or answers that she has had thoughts of harming herself (question 10), this indicates a significant concern for maternal depression. Please refer the mother to the clinic (complete the referral form).

- If the mother scores ≥ 12, please return to see the mother 1-2 times per week until her score improves to < 12. Repeat the EPDS questions at each follow-up visit and complete a Follow-up Visit form in ODK at that time. Once the mother’s EPDS score is < 12, you no longer need to follow-up.

Review the Neonatal Flipchart with the mother.

- Check how the mother is breastfeeding. Watch her breastfeed and examine her breasts. Refer the mother to the health post or clinic if she is having difficulty breastfeeding and either of her breasts are tender and red (complete the referral form).

- If the mother has been referred, return within 1-2 days to follow-up. Complete a Follow-up Visit form in ODK at that time.

Weigh the child and measure the head circumference and length (see appendix for instructions on weighing and measuring children).

- Plot the child’s weight on the growth chart. Explain to the mother that the growth chart is an important way for us to monitor if the child is getting enough food and is growing well. Instruct her to keep it in the plastic cover in a safe place so that you can use it to follow the child’s growth during the next three years. Instruct her to bring this chart to every visit.

- If the child has gained weight since the last visit, congratulate the mother on her breastfeeding! Ask her about breastfeeding and if she is having any problems or pain.

- If the child weighs the same or less than he did at birth or at the previous birth visit, ask the mother what happened. Ask her about breastfeeding and if she is
having any problems or pain. The child needs to be referred to the clinic or hospital (complete the appropriate referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

☐ Make sure to record the date of the visit on the Child Tracking Form after the visit has been completed.
Child Visit #3

★ 1 Month Visit

★ Individual home visit

★ Supplies to bring: flipchart, scale and rope, length board, measuring tape, mobile phone, paper forms and writing utensil (REDCap registration, child tracking, and referral forms)

☐ Complete the 1 Month Visit form in ODK during the visit.

☐ Complete the EPDS (Edinburgh Postnatal Depression Scale) questions with the mother. These questions are located on the 1 Month Visit form in ODK.
   - If the mother scores ≥ 12 or answers that she has had thoughts of harming herself (question 10), this indicates a significant concern for maternal depression. Please refer the mother to the health post or clinic (complete the referral form).
   
   - If the mother scores ≥ 12, please return to see the mother 1-2 times per week until her score improves to < 12. Repeat the EPDS questions at each follow-up visit and complete a Follow-up Visit form in ODK at that time. Once the mother’s EPDS score is < 12, you no longer need to follow-up.

☐ Review the 1 - 6 Month Flipchart with the mother.

☐ Weigh the child and measure the head circumference and length (see appendix for instructions on weighing and measuring children).

   - Plot the child’s weight on the growth chart.
   - Counsel the mother according to the following Weight-For-Age patterns:

\[ \text{If the graph is going up, congratulate the mother and instruct her to continue to breastfeed her child often.} \]
If the graph is level or going down since the 2-week or birth visit, ask the mother what happened. Ask her about breastfeeding and if she is having any problems or pain. Ask the mother if there have been any changes in the child’s living situation or if the child has had any recent illnesses that may be affecting his growth (and document this on the growth chart). The child needs to be referred to the clinic or hospital (complete the referral form). Return within 1 week to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

Make sure to record the date of the visit on the Child Tracking Form after the visit has been completed.
Child Visit #4

★★ 6 - 9 Month Visit

★★ Group visit in the community (3-10 mothers)

★★ Supplies to bring: flipchart, scale and rope, length board, measuring tape, mobile phone, paper forms and writing utensil (REDCap registration, child tracking, and referral forms)

☐ Complete the 6 - 9 Month Visit form in ODK during the visit. You can start these forms as soon as the mothers begin to arrive. Hand out a snack and drink, play music, and provide toys for the children to play with while waiting for the other mothers to arrive. Encourage the mothers to talk with each other during this time.

☐ Verify each child’s immunization record and record the dates in ODK.
  ▪ Check to see that each child has received birth, 2, 4, and 6 month immunizations as per the following schedule:
    ➢ Birth: BCG
    ➢ 2 Months: Polio, Penta, Rotavirus, Neumococo
    ➢ 4 Months: Polio, Penta, Rotavirus, Neumococo
    ➢ 6 Months: Polio, Penta
  ▪ Refer the child to the health post if he has not received all of these vaccinations.

☐ Complete an ASQ (Ages and Stages Questionnaire) developmental screening form for each child according to his age. Make sure to record the current date, child’s name, child’s birthdate, and Niños Sanos ID (código) on the front of the ASQ form. Save these forms to be collected at a later date.
  ▪ Score the ASQ by giving “Yes” = 10 points, “Sometimes” = 5 points, and “Not yet” = 0 points. Add the scores for each category and enter them on the last page. The child is delayed if the score is in the black range, borderline if the score is in the gray range, and normal if the score is in the white range. Enter these scores into ODK.
- Refer any child with delays in 4 or more categories to the Rotary Club of Coatepeque or Fundabien. The child should also be evaluated at the clinic.

- Review the 6-12 Month Flipchart with the mothers.

- Weigh and measure the head circumference, mid-upper arm circumference, and length of each child (see appendix for instructions on weighing and measuring children). Do this at the end of the visit. Congratulate the mothers whose children are growing well in front of all of the mothers. This helps to motivate the mothers to provide good nutrition for their child to grow. Be careful not to stigmatize the mothers whose children are not growing well. You may say something like, “Some of you may be having problems with getting your child to gain weight and we want to help you.” If a child is not growing well, talk to this mother by herself after the visit to explain the significance of the growth curve, see how you can help, and check if the child needs to be referred.

- Plot the child’s weight and length on the growth chart.

- Counsel the mother according to the following Weight-For-Age patterns:

  - If the graph is going up, congratulate the mother and instruct her to continue to breastfeed her child often and to feed her child lots of healthy and pureed foods.

  - If the graph is level, instruct the mother to feed the child more often. Ask the mother what happened. Ask her if there have been any changes in the child’s living situation or if the child has had any recent illnesses that may be affecting his growth (and document this on the growth chart). Follow this child closely since he is in danger of poor growth. He should be re-weighed in 2-4 weeks. Complete a Follow-up Visit form in ODK at that time. If he continues to have no growth when he is re-weighed, he should be referred to the clinic or hospital (make sure to complete the referral form). Any
child who has not gained weight over a 2 month period should be referred to the clinic or hospital.

If the graph is going down, the child is in a very dangerous situation. Ask the mother what happened. Ask her if there have been any changes in the child’s living situation or if the child has had any recent illnesses that may be affecting his growth (and document this on the growth chart).

- If the child is ill-appearing, refer him to the clinic or hospital (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

- If the child is not ill appearing, counsel the mother to feed the child more food and more often. Give the mother a supplement to feed to her child (such as Incaparina), if available. You can also instruct her to add 1 teaspoon of cooking oil to the child’s portion at the main meal each day and add half an avocado to the child’s portion, if available. Re-weigh the child in 1-2 weeks. Complete a Follow-up Visit form in ODK at that time.

  - If he continues to lose weight or has not gained weight on the second visit, refer him to the clinic or hospital (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

  - If the child has gained weight at this visit, congratulate the mother and continue to follow the child closely. He does not need to be referred at this time. He should be reweighed in 2-4 weeks. Complete a Follow-up Visit form in ODK at that time.
- If the child has signs of kwashiorkor (edema or swelling, especially in the ankles or feet) or marasmus (severe loss of muscle), the child has severe malnutrition and should be referred to the clinic or hospital regardless of the weight-for-age (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time. CAUTION: Children with kwashiorkor can have normal to elevated weight due to water retention and may not show weight loss. You should check closely for these additional signs: swelling of the ankles and feet, a large and protruding belly, thinning and reddish hair, skin sores, irritability, and poor appetite.

- If the mid-upper arm circumference is < 11.5 cm, the child has severe acute malnutrition and needs to be referred to the hospital or clinic (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

☐ Make sure to record the date of the visit on the Child Tracking Form for each child after the visit has been completed.
Child Visit #5

★ 12 - 15 Month Visit

★ Group visit in the community (3-10 mothers)

★ Supplies to bring: flipchart, scale and rope, length board, measuring tape, mobile phone, paper forms and writing utensil (REDCap registration, child tracking, and referral forms)

☐ Complete the 12 - 15 Month Visit form in ODK during the visit. You can start these forms as soon as the mothers begin to arrive. Hand out a snack and drink, play music, and provide toys for the children to play with while waiting for the other mothers to arrive. Encourage the mothers to talk with each other during this time.

☐ Verify each child’s immunization record and record the dates in ODK.
  - Check to see that each child has received birth, 2, 4, 6, and 12 month immunizations as per the following schedule:
    - Birth: BCG
    - 2 Months: Polio, Penta, Rotavirus, Neumococo
    - 4 Months: Polio, Penta, Rotavirus, Neumococo
    - 6 Months: Polio, Penta
    - 12 Months: Neumococo, SPR
  - Refer the child to the health post if he has not received all of these vaccinations.

☐ Complete an ASQ (Ages and Stages Questionnaire) developmental screening form for each child according to his age. Make sure to record the current date, child’s name, child’s birthdate, and Niños Sanos ID (código) on the front of the ASQ form. Save these forms to be collected at a later date.
  - Score the ASQ by giving “Yes” = 10 points, “Sometimes” = 5 points, and “Not yet” = 0 points. Add the scores for each category and enter them on the last page. The child is delayed if the score is in the black range, borderline if the score is in the
gray range, and normal if the score is in the white range. Enter these scores into ODK.

- Refer any child with delays in 4 or more categories to the Rotary Club of Coatepeque or Fundabien. The child should also be evaluated at the clinic.

- Review the 12 - 24 Month Flipchart with the mothers.

- Weigh and measure the head circumference, mid-upper arm circumference, and length of each child (see appendix for instructions on weighing and measuring children). Do this at the end of the visit. Congratulate the mothers whose children are growing well in front of all of the mothers. This helps to motivate the mothers to provide good nutrition for their child to grow. Be careful not to stigmatize the mothers whose children are not growing well. You may say something like, “Some of you may be having problems with getting your child to gain weight and we want to help you.” If a child is not growing well, talk to this mother by herself after the visit to explain the significance of the growth curve, see how you can help, and check if the child needs to be referred.

- Plot the child’s weight and length on the growth chart.

- Counsel the mother according to the following Weight-For-Age patterns:

  - If the graph is going up, congratulate the mother and instruct her to continue to breastfeed her child often and to feed her child lots of healthy foods.

  - If the graph is level, instruct the mother to feed the child more often. Ask the mother what happened. Ask her if there have been any changes in the child’s living situation or if the child has had any recent illnesses that may be affecting his growth (and document this on the growth chart). Follow this child closely since he is in danger of poor growth. He should be re-weighed in 2-4 weeks. Complete a Follow-up Visit form in ODK at that time. If he continues to have no growth when he is re-weighed, he should be referred to
Any child who has not gained weight over a 2 month period should be referred to the clinic or hospital.

If the graph is going down, the child is in a very dangerous situation. Ask the mother what happened. Ask her if there have been any changes in the child’s living situation or if the child has had any recent illnesses that may be affecting his growth (and document this on the growth chart).

- If the child is ill-appearing, refer him to the clinic or hospital (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

- If the child is not ill appearing, counsel the mother to feed the child more food and more often. Give the mother a supplement to feed to her child (such as Incaparina), if available. You can also instruct her to add 1 tablespoon of cooking oil to the child’s portion at the main meal each day and add half an avocado to the child’s portion, if available. Re-weigh the child in 1-2 weeks. Complete a Follow-up Visit form in ODK at that time.

  o If he continues to lose weight or has not gained weight on the second visit, refer him to the clinic or hospital (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

  o If the child has gained weight at this visit, congratulate the mother and continue to follow the child closely. He does not need to be referred at this time. He should be reweighed in 2-4 weeks. Complete a Follow-up Visit form in ODK at that time.
- If the child has signs of kwashiorkor (edema or swelling, especially in the ankles or feet) or marasmus (severe loss of muscle), the child has severe malnutrition and should be referred to the clinic or hospital regardless of the weight-for-age (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time. CAUTION: Children with kwashiorkor can have normal to elevated weight due to water retention and may not show weight loss. You should check closely for these additional signs: swelling of the ankles and feet, a large and protruding belly, thinning and reddish hair, skin sores, irritability, and poor appetite.

- If the mid-upper arm circumference is < 11.5 cm, the child has severe acute malnutrition and needs to be referred to the hospital or clinic (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

☐ Make sure to record the date of the visit on the Child Tracking Form for each child after the visit has been completed.
Child Visit #6

★ 24 - 27 Month Visit

★ Group visit in the community (3-10 mothers)

★ Supplies to bring: flipchart, scale and rope, length board, measuring tape, mobile phone, paper forms and writing utensil (REDCap registration, child tracking, and referral forms)

☐ Complete the 24 - 27 Month Visit form in ODK during the visit. You can start these forms as soon as the mothers begin to arrive. Hand out a snack and drink, play music, and provide toys for the children to play with while waiting for the other mothers to arrive. Encourage the mothers to talk with each other during this time.

☐ Verify each child’s immunization record and record the dates in ODK.
   ▪ Check to see that each child has received birth, 2, 4, 6, 12, and 18 month immunizations as per the following schedule:
     ➢ Birth: BCG
     ➢ 2 Months: Polio, Penta, Rotavirus, Neumococo
     ➢ 4 Months: Polio, Penta, Rotavirus, Neumococo
     ➢ 6 Months: Polio, Penta
     ➢ 12 Months: Neumococo, SPR
     ➢ 18 Months: Polio, DPT refuerzo
   
   ▪ Refer the child to the health post if he has not received all of these vaccinations.

☐ Complete an ASQ (Ages and Stages Questionnaire) developmental screening form for each child according to his age. Make sure to record the current date, child’s name, child’s birthdate, and Niños Sanos ID (código) on the front of the ASQ form. Save these forms to be collected at a later date.
   
   ▪ Score the ASQ by giving “Yes” = 10 points, “Sometimes” = 5 points, and “Not yet” = 0 points. Add the scores for each category and enter them on the last page. The
child is delayed if the score is in the black range, borderline if the score is in the gray range, and normal if the score is in the white range. Enter these scores into ODK.

- Refer any child with delays in 4 or more categories to the Rotary Club of Coatepeque or Fundabien. The child should also be evaluated at the clinic.

☐ Review the 24 - 36 Month Flipchart with the mothers. This talk is similar to the 12 - 24 month flipchart, so you can focus on topics that the mothers would like to review.

☐ Weigh and measure the head circumference, mid-upper arm circumference, and length of each child (see appendix for instructions on weighing and measuring children). Do this at the end of the visit. Congratulate the mothers whose children are growing well in front of all of the mothers. This helps to motivate the mothers to provide good nutrition for their child to grow. Be careful not to stigmatize the mothers whose children are not growing well. You may say something like, “Some of you may be having problems with getting your child to gain weight and we want to help you.” If a child is not growing well, talk to this mother by herself after the visit to explain the significance of the growth curve, see how you can help, and check if the child needs to be referred.

- Plot the child’s weight and length on the growth chart.
- Counsel the mother according to the following Weight-For-Age patterns:

  = If the graph is going up, congratulate the mother and instruct her to continue to breastfeed her child often and to feed her child lots of healthy foods.

  = If the graph is level, instruct the mother to feed the child more often. Ask the mother what happened. Ask her if there have been any changes in the child’s living situation or if the child has had any recent illnesses that may be affecting his growth (and document this on the growth chart). Follow this child closely since he is in
danger of poor growth. He should be re-weighed in 2-4 weeks. Complete a Follow-up Visit form in ODK at that time. If he continues to have no growth when he is re-weighed, he should be referred to the clinic or hospital (make sure to complete the referral form). Any child who has not gained weight over a 2 month period should be referred to the clinic or hospital.

If the graph is going down, the child is in a very dangerous situation. Ask the mother what happened. Ask her if there have been any changes in the child’s living situation or if the child has had any recent illnesses that may be affecting his growth (and document this on the growth chart).

- If the child is ill-appearing, refer him to the clinic or hospital (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

- If the child is not ill appearing, counsel the mother to feed the child more food and more often. Give the mother a supplement to feed to her child (such as Incaparina), if available. You can also instruct her to add 1 tablespoon of cooking oil to the child’s portion at the main meal each day and add half an avocado to the child’s portion, if available. Re-weigh the child in 1-2 weeks. Complete a Follow-up Visit form in ODK at that time.

  - If he continues to lose weight or has not gained weight on the second visit, refer him to the clinic or hospital (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

  - If the child has gained weight at this visit, congratulate the mother and continue to follow the child closely. He
does not need to be referred at this time. He should be reweighed in 2-4 weeks. Complete a Follow-up Visit form in ODK at that time.

- If the child has signs of kwashiorkor (edema or swelling, especially in the ankles or feet) or marasmus (severe loss of muscle), the child has severe malnutrition and should be referred to the clinic or hospital regardless of the weight-for-age (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time. CAUTION: *Children with kwashiorkor can have normal to elevated weight due to water retention and may not show weight loss. You should check closely for these additional signs: swelling of the ankles and feet, a large and protruding belly, thinning and reddish hair, skin sores, irritability, and poor appetite.*

- If the mid-upper arm circumference is < 11.5 cm, the child has severe acute malnutrition and needs to be referred to the hospital or clinic (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

- Make sure to record the date of the visit on the Child Tracking Form for each child after the visit has been completed.
Child Visit #7

★ 36 - 39 Month Visit
★ Group visit in the community (3-10 mothers)
★ Supplies to bring: scale and rope, vertical length board, measuring tape, mobile phone, paper forms and writing utensil (REDCap registration, child tracking, and referral forms), Certificate of Completion for each mother

☐ Complete the 36 - 39 Month Visit form in ODK during the visit. You can start these forms as soon as the mothers begin to arrive. Hand out a snack and drink, play music, and provide toys for the children to play with while waiting for the other mothers to arrive. Encourage the mothers to talk with each other during this time.

☐ Verify each child’s immunization record and record the dates in ODK.
   ▪ Check to see that each child has received birth, 2, 4, 6, 12, and 18 month immunizations as per the following schedule:
     ➢ Birth: BCG
     ➢ 2 Months: Polio, Penta, Rotavirus, Neumococo
     ➢ 4 Months: Polio, Penta, Rotavirus, Neumococo
     ➢ 6 Months: Polio, Penta
     ➢ 12 Months: Neumococo, SPR
     ➢ 18 Months: Polio, DPT refuerzo

       ▪ Refer the child to the health post if he has not received all of these vaccinations.

☐ Complete an ASQ (Ages and Stages Questionnaire) developmental screening form for each child according to his age. Make sure to record the current date, child’s name, child’s birthdate, and Niños Sanos ID (código) on the front of the ASQ form. Save these forms to be collected at a later date.
   ▪ Score the ASQ by giving “Yes” = 10 points, “Sometimes” = 5 points, and “Not yet” = 0 points. Add the scores for each category and enter them on the last page.
child is delayed if the score is in the black range, borderline if the score is in the gray range, and normal if the score is in the white range. Enter these scores into ODK.

- Refer any child with delays in 4 or more categories to the Rotary Club of Coatepeque or Fundabien. The child should also be evaluated at the clinic.

☐ Weigh and measure the head circumference, mid-upper arm circumference, and length of each child. *Since the child is now older than 2 years, make sure to measure the child’s height using a height board mounted at a right angle between a level floor and against a straight and vertical surface (see appendix for instructions on weighing and measuring children).* Do this at the end of the visit. Congratulate the mothers whose children are growing well in front of all of the mothers. This helps to motivate the mothers to provide good nutrition for their child to grow. Be careful not to stigmatize the mothers whose children are not growing well. You may say something like, “Some of you may be having problems with getting your child to gain weight and we want to help you.” If a child is not growing well, talk to this mother by herself after the visit to explain the significance of the growth curve, see how you can help, and check if the child needs to be referred.

- Plot the child’s weight and length on the growth chart.
- Counsel the mother according to the following Weight-For-Age patterns:

  - If the graph is going up, congratulate the mother and instruct her to continue to breastfeed her child often and to feed her child lots of healthy foods.

  - If the graph is level, instruct the mother to feed the child more often. Ask the mother what happened. Ask her if there have been any changes in the child’s living situation or if the child has had any recent illnesses that may be affecting his growth (and document this on the growth chart). Follow this child closely since he is in danger of poor growth. He should be re-weighed in 2-4 weeks.
Complete a Follow-up Visit form in ODK at that time. If he continues to have no growth when he is re-weighed, he should be referred to the clinic or hospital (make sure to complete the referral form). Any child who has not gained weight over a 2 month period should be referred to the clinic or hospital.

If the graph is going down, the child is in a very dangerous situation. Ask the mother what happened. Ask her if there have been any changes in the child’s living situation or if the child has had any recent illnesses that may be affecting his growth (and document this on the growth chart).

- If the child is ill-appearing, refer him to the clinic or hospital (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

- If the child is not ill appearing, counsel the mother to feed the child more food and more often. Give the mother a supplement to feed to her child (such as Incaparina), if available. You can also instruct her to add 1 tablespoon of cooking oil to the child’s portion at the main meal each day and add half an avocado to the child’s portion, if available. Re-weigh the child in 1-2 weeks. Complete a Follow-up Visit form in ODK at that time.

  - If he continues to lose weight or has not gained weight on the second visit, refer him to the clinic or hospital (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

  - If the child has gained weight at this visit, congratulate the mother and continue to follow the child closely. He does not need to be referred at this time. He should be
If the child has signs of kwashiorkor (edema or swelling, especially in the ankles or feet) or marasmus (severe loss of muscle), the child has severe malnutrition and should be referred to the clinic or hospital regardless of the weight-for-age (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time. CAUTION: Children with kwashiorkor can have normal to elevated weight due to water retention and may not show weight loss. You should check closely for these additional signs: swelling of the ankles and feet, a large and protruding belly, thinning and reddish hair, skin sores, irritability, and poor appetite.

If the mid-upper arm circumference is < 11.5 cm, the child has severe acute malnutrition and needs to be referred to the hospital or clinic (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

Make sure to record the date of the visit on the Child Tracking Form for each child after the visit has been completed.

Celebrate the completion of the Niños Sanos Program by giving all mothers a Certificate of Completion. Congratulate the mothers and children on a job well done!
Care Groups

★ Group sessions in the community (3-10 mother/child pairs)
★ Supplies to bring: food and water for a snack, flipchart, scale and rope, length board, measuring tape, mobile phone, paper forms and writing utensil (REDCap registration, child tracking and referral forms), and any supplies needed for the Care Group activity

☐ Complete the Care Group form in ODK for each child. Make sure to mark the correct session number for the activity. You can start these forms as soon as the mothers begin to arrive. Hand out a snack and drink, play music, and provide toys for the children to play with while waiting for the other mothers to arrive. Encourage the mothers to talk with each other during this time.

☐ Follow the Care Group Manual to run each session.

☐ Weigh and measure the head circumference and length/height of each child (see appendix for instructions on weighing and measuring children). Make sure to measure the standing height if the child is older than 2 years. You should also measure the mid-upper arm circumference for children older than 6 months. It is okay to measure the length of each child every 2-3 months, but the weight should be measured every month. Do this at the end of the visit. Congratulate the mothers whose children are growing well in front of all of the mothers. This helps to motivate the mothers to provide good nutrition for their child to grow. Be careful not to stigmatize the mothers whose children are not growing well. You may say something like, “Some of you may be having problems with getting your child to gain weight and we want to help you.” If a child is not growing well, talk to this mother by herself after the visit to explain the significance of the growth curve, see how you can help, and check if the child needs to be referred.

- Plot the child’s weight and length on the growth chart.
- Counsel the mother according to the following Weight-For-Age patterns:
If the graph is going up, congratulate the mother and instruct her to continue to breastfeed her child often (if she is still breastfeeding) and to feed her child lots of healthy foods (if the child is > 6 months of age).

If the graph is level, instruct the mother to feed the child more often. Ask the mother what happened. Ask her if there have been any changes in the child’s living situation or if the child has had any recent illnesses that may be affecting his growth (and document this on the growth chart). Follow this child closely since he is in danger of poor growth. He should be re-weighed in 2-4 weeks. Complete a Follow-up Visit form in ODK at that time. If he continues to have no growth when he is re-weighed, he should be referred to the clinic or hospital (make sure to complete the referral form). Any child who has not gained weight over a 2 month period should be referred to the clinic or hospital.

If the graph is going down, the child is in a very dangerous situation. Ask the mother what happened. Ask her if there have been any changes in the child’s living situation or if the child has had any recent illnesses that may be affecting his growth (and document this on the growth chart).

- If the child is ill-appearing, refer him to the clinic or hospital (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

- If the child is not ill appearing, counsel the mother to feed the child more food and more often. If the child is < 6 months of age, ask if the mother is having any problems breastfeeding and instruct her to feed more often. If the child is > 6 months of age, give the mother a supplement to feed to her child (such as...
Incaparina), if available. You can also instruct her to add 1 tablespoon (1 teaspoon if the child is < 12 months) of cooking oil to the child’s portion at the main meal each day and add half an avocado to the child’s portion, if available. Re-weigh the child in 1-2 weeks. Complete a Follow-up Visit form in ODK at that time.

- If he continues to lose weight or has not gained weight on the second visit, refer him to the clinic or hospital (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

- If the child has gained weight at this visit, congratulate the mother and continue to follow the child closely. He does not need to be referred at this time. He should be reweighed in 2-4 weeks. Complete a Follow-up Visit form in ODK at that time.

- If the mid-upper arm circumference is < 11.5 cm, the child has severe acute malnutrition and needs to be referred to the hospital or clinic (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.

- If the child has signs of kwashiorkor (edema or swelling, especially in the ankles or feet) or marasmus (severe loss of muscle), the child has severe malnutrition and should be referred to the clinic or hospital regardless of the weight-for-age (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time. CAUTION: Children with kwashiorkor can have normal to elevated weight due to water retention and may not show weight loss. You should check closely for these additional signs: swelling of the ankles and feet, a large and protruding belly, thinning and reddish hair, skin sores, irritability, and poor appetite.

- If the mid-upper arm circumference is < 11.5 cm, the child has severe acute malnutrition and needs to be referred to the hospital or clinic (complete the referral form). Return within 1-2 days to follow-up with the family. Complete a Follow-up Visit form in ODK at that time.
☐ Make sure to record the date of the care group on the Child Tracking Form for each child.

☐ Make sure to complete a paper progress note after each care group session (Care Group Progress Note). This note should be emailed to faculty at the University of Colorado at the end of each week.
**Referrals**

☐ Make sure to complete and give to the family the Referral form for any child or mother being referred to the health post, clinic, or hospital. This is very important so that the health care provider knows why the patient has been sent to see them.

**Follow-up Visits**

★ Individual home visit

★ Supplies to bring: scale and rope, mobile phone, paper forms and writing utensil (referral forms)

☐ Return to follow-up with the family for any mother and/or child who were referred. You should follow-up with each family based on the instructions for the specific reason for referral in this manual (generally within a week of being referred). Make sure to complete the Follow-up Visit form in ODK at that time.
Weekly Reporting Log

☐ This form reports your total weekly health visits, care group sessions, and follow-up visits per community. It should be completed and emailed to faculty at the University of Colorado at the end of each week.
APPENDIX A: Measuring the Weight of a Child

Hook the scale to a sturdy and safe tripod, tree branch, or pole. Suspend the infant sling (used in infants who cannot sit up on their own yet) or weighing pants (used in older infants/toddlers who are able to sit) from the lower hook of the scale and adjust the point of the scale to zero. Undress the child and place him in the infant sling or weighing pants (make sure to remove hats and shoes as well). If his diaper is heavy and wet, have the mother change him before weighing. Ensure that the child hangs freely without holding onto anything, and make sure that nobody touches the weighing pants, sling, child, or scale during the weighing. When the child is settled and the weight reading is stable, record the weight to the nearest 0.1 kg. Remove the child slowly and safely. Make sure to wash the weighing pants and sling after each session and have them dry in the hot sun to ensure that they are kept clean. If a child is sick, weigh him at the end of the session so that he is the last one to use the weighing pants or sling.
APPENDIX B: Measuring the Length and Height of a Child

You will measure a child’s length or height depending on the child’s age and ability to stand on his own. Standard growth charts use length measurements (with the child lying down) until the child reaches 2 years of age. After 2 years of age, height measurements (with the child standing up) are used instead.

- **If the child is less than 2 years old**: Measure the child’s length by placing a length board on a flat and stable surface (such as a table) and having the child lie down. The child’s shoes and socks should be removed. Explain to the mother that she will need to help place the child on the length board and hold the child’s head in place. The mother should stand on the opposite side of the length board from you and should lay the child on his back and hold the child’s head against the fixed headboard, compressing the hair.

Check that the child lies straight along the board and does not move and change position. Hold the child’s legs with one hand and move the footboard with your other hand. Apply gentle pressure to the knees to straighten the legs. If the child is very agitated, you may only be able to measure with one leg in position. While holding the knees, pull the footboard against the child’s feet. The soles of the feet should be flat against the footboard with the toes pointing upwards. If the child bends the toes and prevents the footboard from touching the soles, scratch the soles slightly and slide the footboard in place quickly when the child straightens the toes. Read the measurement and record the child’s length in centimeters to the last completed 0.1 cm.
• **If the child is 2 years or older:** Measure the child’s height using a height board mounted at a right angle between a level floor and against a straight and vertical surface (such as a wall). The child’s shoes and socks should be removed. Help the child to stand on the baseboard with his feet slightly apart. The back of his head, shoulder blades, buttocks, calves, and heels should all be touching the vertical board. Ask the mother to hold the child’s knees and ankles to help keep the legs straight and the feet flat. Position the child’s head so that a horizontal line from the ear canal to the lower border of the eye runs parallel to the base board. Hold the child’s chin to help keep the head in this position. If necessary, push gently on the tummy to help the child stand straight. Use your other hand to pull down the headboard to rest firmly on top of the head, compressing the hair. Read the measurement and record the child’s height in centimeters to the nearest 0.1 cm.

• **Note:** If the child is aged 2 years or older and cannot stand, measure the length with the child lying down and subtract 0.7 cm to convert it to height. This calculation is necessary because gravity decreases height by 0.7 cm when standing, and standard growth charts assume a standing height measurement after 2 years of age.
APPENDIX C: Measuring Head Circumference

Head circumference is a measurement of a child’s head around its largest area. It measures the distance from above the eyebrows and ears and around the back of the head. The measurement should be taken with a flexible tape measure. Wrap the tape snugly around the widest possible circumference of the head while avoiding the ears. This will be from the most prominent part of the forehead (often 1-2 fingers above the eyebrow) around to the widest part of the back of the head. Measure at least two times, and record the largest number to the nearest 0.1 cm.
**APPENDIX D: Measuring Mid-Upper-Arm Circumference**

Mid-upper arm circumference (MUAC) should be measured in children aged 6 months and older. To measure MUAC, a flexible measuring tape is wrapped around the mid-upper arm (between the shoulder and the elbow). MUAC should be measured on the left upper arm with the arm hanging down the side of the body, relaxed, and bent at the elbow. To measure MUAC, follow the steps below:

1. First locate the tip of the shoulder (1).
2. From the tip of the shoulder (2), with the elbow bent, find the tip of the elbow (3).
3. Place the tape measure (or a string) at the tip of the shoulder (4) and extend it to the tip of the elbow (5).
4. Mark the midpoint between the two (6).
5. Slide the tape measure around the midpoint and record the measurement to the nearest 0.1 cm (7).

Be careful to use enough tension to hold the tape against the skin but NOT to pull the skin. If the tape is too tight where the skin is pinched (8) or too loose where the tape is not touching the skin (9), the measurement will be inaccurate.
APPENDIX E: Niños Sanos Program Forms

- Child Tracking Form (paper)
- Child Registration (REDCap)
- Child Inscription (ODK)
- Child Visit #1 (ODK)
- Child Visit #2 (ODK)
- Child Visit #3 (ODK)
- Child Visit #4 (ODK)
- Child Visit #5 (ODK)
- Child Visit #6 (ODK)
- Child Visit #7 (ODK)
- Care Group (ODK)
- Care Group Progress Note (paper)
- Follow-up Visit (ODK)
- Referral Form (paper)