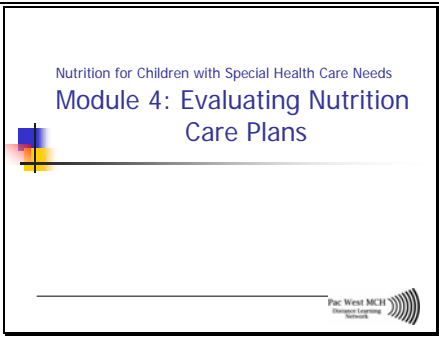
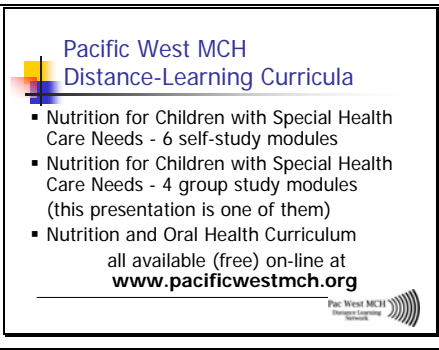
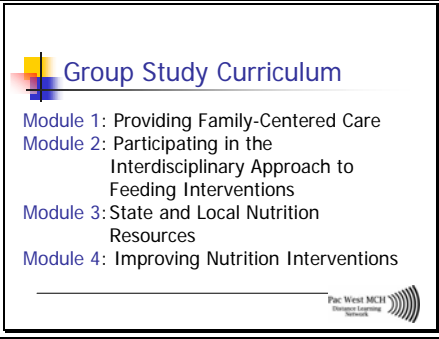
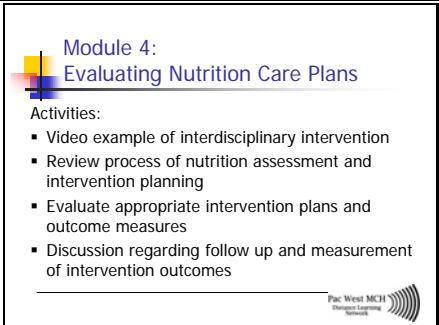


Pacific West Distance Learning Network
Nutrition for Children with Special Health Care Needs Curriculum

Group Study Module 4: Evaluating Nutrition Care Plans
Speaker Notes


1	 <p>Nutrition for Children with Special Health Care Needs Module 4: Evaluating Nutrition Care Plans</p> <p>Pac West MCH Distance Learning Network</p>	
2	 <p>Pacific West MCH Distance-Learning Curricula</p> <ul style="list-style-type: none">▪ Nutrition for Children with Special Health Care Needs - 6 self-study modules▪ Nutrition for Children with Special Health Care Needs - 4 group study modules (this presentation is one of them)▪ Nutrition and Oral Health Curriculum all available (free) on-line at www.pacificwestmch.org <p>Pac West MCH Distance Learning Network</p>	<p>All of these materials are available free-of-charge on the website listed.</p> <p>Participants may also be interested in the self-study curriculum.</p> <p>There may be a charge for continuing education credit.</p>
3	 <p>Group Study Curriculum</p> <p>Module 1: Providing Family-Centered Care Module 2: Participating in the Interdisciplinary Approach to Feeding Interventions Module 3: State and Local Nutrition Resources Module 4: Improving Nutrition Interventions</p> <p>Pac West MCH Distance Learning Network</p>	<p>These four modules are available as group-study topics for inservices and other meetings. The material in these modules is best learned through an interactive process between the group leader and amongst the group members. A Leaders' guide, powerpoint presentations, handouts and video segments are available free-of-charge.</p>
4	 <p>Module 4: Evaluating Nutrition Care Plans</p> <p>Activities:</p> <ul style="list-style-type: none">▪ Video example of interdisciplinary intervention▪ Review process of nutrition assessment and intervention planning▪ Evaluate appropriate intervention plans and outcome measures▪ Discussion regarding follow up and measurement of intervention outcomes <p>Pac West MCH Distance Learning Network</p>	<p>These are the activities that we will be completing as part of this module.</p>

5

Learning Objectives

After completing the module, participants will have the knowledge and skills to:

- Critically evaluate the development of nutrition interventions
- Develop alternative strategies for weak nutrition intervention plans
- Determine appropriate mechanisms for nutrition follow-up



6

The Process of Developing a Nutrition Care Plan


- **Decide on Nutrition Outcomes**
(assessment to identify problems)
- **Develop Nutrition Interventions**
(to address identified problems)
- **Determine Outcome Measures**
(appropriate to specific interventions)



7

The Process

- Screening
- Assessment
 - Anthropometrics
 - Biochemical
 - Clinical/Medical
 - Dietary/Feeding
- Intervention
- Evaluation



Nutrition services for all individuals generally require the same process...

Screening to identify risk (often, a SHCN is a risk factor) – we won't cover this part today

The assessment process is generally the same process (though may focus on different aspects): a series of evaluations used to make decisions about the need for and design of interventions. We'll these briefly.

The focus of today's discussion is on these last two steps in the process: intervention and evaluation.

Intervention – when a problem is identified, what is done? A plan should be developed with input from all players.

Evaluation – was the plan effective? How could it be improved? Does anything else need to be done?

8

The Process:

Assessment


- Anthropometrics →
- Biochemical
- Clinical/Medical
- Dietary/Feeding

How does the condition affect:

- Growth potential?
- Body composition
- Risk of over/under-weight

Are the effects on growth nutrition-related or non-nutritional?

Do any medications have the potential to affect growth? Weight gain?



With any special health care need or medical condition, practitioners should add these types of questions to the assessment process...ANTHROPOMETRICS

9

The Process:

Assessment

- Anthropometrics
- Biochemical
- Clinical/Medical
- Dietary/Feeding

Does the condition affect biochemical markers?

Do medications affect biochemical markers?

Does the condition require special biochemical monitoring?

With any special health care need or medical condition, practitioners should add these types of questions to the assessment process...BIOCHEMICAL MARKERS

10

The Process:

Assessment

- Anthropometrics
- Biochemical
- Clinical/Medical
- Dietary/Feeding

Are there any secondary conditions that might affect nutritional status (e.g., constipation, malabsorption)?

With any special health care need or medical condition, practitioners should add these types of questions to the assessment process...CLINICAL STATUS AND MEDICAL CONDITIONS

11

The Process:

Assessment

- Anthropometrics
- Biochemical
- Clinical/Medical
- Dietary/Feeding

Does the condition affect nutrient needs?
(Energy, other macronutrients; vitamins, minerals; fluid)

Does the condition affect ability to eat?
(Positioning, oral-motor skills, coordination, need for different portion size, acceptance of food, meal duration, social interaction)

With any special health care need or medical condition, practitioners should add these types of questions to the assessment process...DIETARY AND FEEDING

12

The Process:

Intervention = ACTION = What will be done differently?

- Individualized
- Specific
- Outcome-based
- Family centered

Example: Family will offer energy-dense foods at meal and snack times

If we think back to the nutrition care process, the final steps are intervention and evaluation. This next section will focus on developing strong interventions...or strong plans.

The intervention is the action...what will be done differently. Strong interventions are...*family will offer energy-dense foods at meal and snack times* Another example of an intervention is “whole grain bread will be used instead of white bread”

13

Interventions

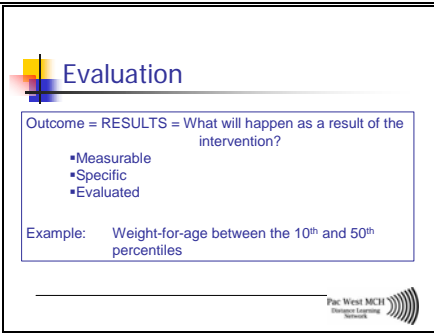
Effective interventions specify:

- **What** will be done
- **How** it will be carried out
- **Who** will do it
- **When** it will happen
- **Where** it will happen (when appropriate)

Family will offer 2 foods with crunchy textures at each meal

Color codes relate to specific words/parts of the intervention plan.

14



Evaluation

Outcome = RESULTS = What will happen as a result of the intervention?

- Measurable
- Specific
- Evaluated

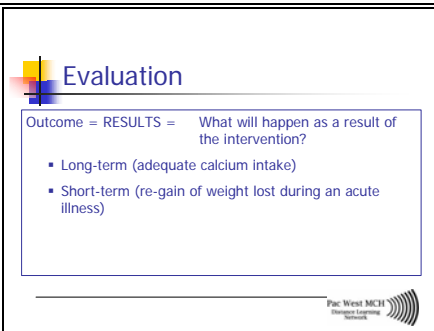
Example: Weight-for-age between the 10th and 50th percentiles

Pac West MCH
Discharge Learning
Network

To evaluate the intervention, we look at the outcome, or the results. In order to assess whether or not the intervention was effective, the outcome indicator must be: *measurable, specific, evaluated*

One example of an outcome measure is: *weight-for-age between the 10th and 50th percentiles*. Another example of an outcome is *intake that provides 15 g fiber per day*.

15



Evaluation

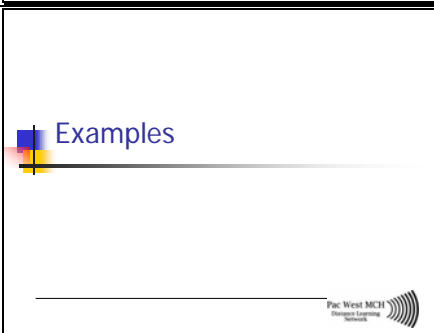
Outcome = RESULTS = What will happen as a result of the intervention?

- Long-term (adequate calcium intake)
- Short-term (re-gain of weight lost during an acute illness)

Pac West MCH
Discharge Learning
Network

Outcomes can be long-term (e.g., adequate calcium intake for a young child, weight maintenance for an adolescent) or short term (regain of weight lost during an acute illness, adequate energy intake during the transition from tube-feeding to oral eating)

16

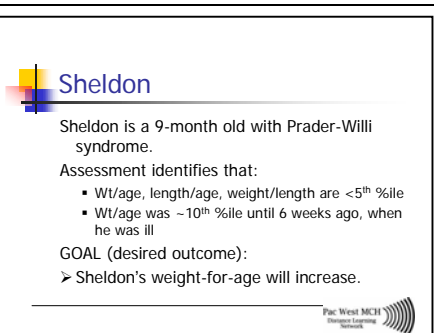


Examples

Pac West MCH
Discharge Learning
Network

Now, we'll look at some examples. For these children, goals were identified and interventions were planned, but the goals and interventions are not as strong as they could be. How could they be strengthened?

17



Sheldon

Sheldon is a 9-month old with Prader-Willi syndrome.

Assessment identifies that:

- Wt/age, length/age, weight/length are <5th %ile
- Wt/age was ~10th %ile until 6 weeks ago, when he was ill

GOAL (desired outcome):

- Sheldon's weight-for-age will increase.

Pac West MCH
Discharge Learning
Network

Prader Willi syndrome is a genetic disorder. Individuals with PWS have short stature and hypotonia. During infancy, feeding problems are usually present and growth problems are common. After infancy, problems with obesity can occur if access to food is not tightly controlled.

First, identify the problem to be addressed (low weight/age, weight/length, slow growth). Then, decide on the desired outcome.

What is wrong with this goal? How could it be made stronger?


18

Sheldon

Sheldon is a 9-month old with Prader-Willi syndrome.

IMPROVED GOAL:

- Sheldon's weight-for-length will increase to 5-10th percentile in 6 weeks.



The original outcome does not provide enough detail. The outcome needs to be measurable and specific to Sheldon's situation. Is an increase to slightly above the 5th percentile appropriate? What about an increase to the 95th percentile? What is the timeline? If Sheldon's weight loss was a result of an illness, and he regains weight quickly, is it appropriate to encourage even more weight gain?

Because he has short stature and hypotonia, it may not be reasonable to expect his weight-for-length to be in the "upper percentiles" (e.g., 75th to 90th), but below the 5th percentile is not appropriate.


19

Sheldon

GOAL: Sheldon's weight-for-length will increase to 5-10th percentile in 6 weeks.

INTERVENTION (action):

- Sheldon's family will offer infant formula that is concentrated.



Next, develop an intervention strategy that will enable the desired outcome to be achieved

What is wrong with this intervention? How could it be strengthened?


20

Sheldon

GOAL: Sheldon's weight-for-length will increase to 5-10th percentile in 6 weeks.

IMPROVED INTERVENTION:

- Sheldon's family will offer infant formula that is concentrated to provide 24 kcal/oz. Sheldon's family will receive a written recipe for this special formula.



The intervention needs to specifically state who, how and when the intervention will take place.

Here is a stronger intervention.

After 6 weeks, Sheldon's weight-for-length was between the 5th and 10th percentiles. The RD recommended that Sheldon's family continue to

concentrate his formula, and his growth was monitored every 6 to 8 weeks as his intake of solid foods increased and formula decreased. Sheldon's growth continued appropriately.

Things to consider for Sheldon/children with PWS:

will Sheldon be able to take an increased volume?

how long will it take for him to consume this amount? (for some children, may need to concentrate further)

21


Carla: Desired outcomes

Carla is a 2-year old with cerebral palsy

Assessment indicates that:

- Oral-motor delays interfere with eating
- Weight gain has slowed over past few months
- Labs indicate that she is malnourished

- Carla will be well-nourished
- Carla's feeding problems will be addressed



22

Carla: Measurable Outcomes

Carla is a 2-year old with cerebral palsy


- Oral-motor delays interfere with eating
- Weight gain has slowed over past few months
- Labs indicate that she is malnourished

➢ Carla will be well-nourished

➢ Carla's feeding problems will be addressed

➤ Carla's prealbumin will be in the normal range in 6 weeks

➤ Carla's weight-for-length will be $\geq 10^{\text{th}}$ percentile in 6 months



23

Carla: Measurable Outcomes


Carla is a 2-year old with cerebral palsy

- Oral-motor delays interfere with eating
- Weight gain has slowed over past few months
- Labs indicate that she is malnourished

➢ Carla will be well-nourished

➢ Carla's feeding problems will be addressed

➤ Carla will be referred to a feeding therapist by her next clinic visit




24

Carla: Designing Interventions

Outcomes:

- prealbumin will be in the normal range in 6 weeks
- weight-for-length will be $\geq 10^{\text{th}}$ percentile in 6 months
- Referral to feeding therapist by next clinic visit

Interventions: need to be designed to achieve the measurable outcome



25


Carla: Specific Interventions

Outcomes:

- prealbumin will be in the normal range in 6 weeks
- weight-for-length will be $\geq 10^{\text{th}}$ percentile in 6 months
- Referral to feeding therapist by next clinic visit

Interventions:

- One food with added energy and protein will be offered at each meal and snack
- RD will contact Carla's PCP to initiate referral



For these goals to be met, the RD recognized that Carla's energy and protein needs would have to be met. She estimated that Carla would need, on average, an additional 200 kilocalories and 10 grams protein per day.


One food with added energy and protein will be offered at each meal and snack. (A list of foods and additives that add 25 kilocalories and 2 grams protein each was reviewed with Carla's mother. Specific energy and protein goals were not discussed. Instead, Carla's mother agreed to add one food per meal and snack.)

The nutritionist will contact Carla's primary care physician to initiate the referral. (The RD also provided Carla's mother with the names and contact information for therapists in their community.) Release of information consent forms were signed by Carla's mother, permitting communication of medical information between the RD and Carla's primary care physician.

26

Carla: Evaluating Progress

- Prealbumin will be in the normal range in 6 weeks
 - Blood drawn: prealbumin was in the normal range
 - Outcome modified: prealb, albumin WNL in 6 mos
- Weight-for-length \geq 10th percentile in 6 months
 - Weight-for-length 10th percentile
 - Outcome modified: weight/age 5th-25th %iles, length/age10th-50th %iles, weight/length 10th-50th %iles
- Referral to feeding therapist by next clinic visit
 - Carla's mother reported that referral made
 - Outcome modified: Carla will receive feeding therapy




27

Aaron: Desired Outcomes

Aaron is an 8-year old with Down syndrome. In 9 months, Aaron has gained 7 kg. BMI-for-age is at the 95th %ile

➤ Aaron will maintain a healthy weight



What changes would make this outcome measurable?


28

Aaron: Measurable Outcomes

Aaron is an 8-year old with Down syndrome. In 9 months, Aaron has gained 7 kg. BMI-for-age is at the 95th %ile

➤ Aaron will maintain a healthy weight

➤ Aaron will maintain his current weight (32 kg) until his BMI-for-age is at the 75th %ile



Although a healthy weight is the desired overall result, the original outcome is not useful in a nutrition care plan. What weight is healthy? Should he not gain any weight for a period of time? How does his stature affect this goal? How will Aaron's family know whether or not the intervention was successful?


The following statement would be a more measurable outcome: Aaron will maintain his current weight (32 kilograms) until his BMI-for-age is at the 75th percentile.

29

Aaron: Interventions

Aaron will maintain his current weight (32 kg) until his BMI-for-age is at the 75th %ile

➤ Aaron will eat foods with fewer kilocalories



This intervention is not specific. Fewer kilocalories will help Aaron to maintain his current weight, but the intervention does not provide enough information about how to carry it out to make it effective.

To develop an effective intervention, the RD asked questions to determine why Aaron had gained so much weight (7 kg in 9 months).


Aaron's physical activity level had decreased in the last 9 months, and since his mother had changed jobs, the family was eating out more and eating more convenience foods at home.

30

Aaron: Improved Interventions

Aaron will maintain his current weight (32 kg) until his BMI-for-age is at the 75th %ile

- Aaron's family will substitute foods with fewer kilocalories for energy-dense foods (specific information provided to Aaron's family).
- Aaron will walk to school with his older brother 3 days each week



Aaron's family and the RD developed the following interventions:

31

Justin




- 18 month old with trisomy 21 (Down syndrome)
- Growth is appropriate
- Feeding skills are delayed
- Receives OT, SLP services



Justin's mother expressed frustration with Justin's delayed feeding skills. She's noticed that other children his age are able to feed themselves, and wants to give Justin every opportunity to develop these skills. What interventions could be designed to address the desired outcome of improved feeding skills?

32

Justin: Feeding skills



- Give mother a handout about feeding skill development
- Suggest the family be seen by a feeding therapist
- Suggest that the OT and SLP also work on feeding skills




These three interventions all would help address the feeding skill issue. How could each intervention be made stronger? What could be used as an outcome indicator?

33

Justin: Improved Interventions

- Review feeding skill development handout with mother
- Identify where Justin is and what skills to reinforce
- OUTCOME: Identify desired feeding skills and strategies family can use
- Give mother a handout about feeding skill development
- Suggest the family be seen by a feeding therapist
- Suggest that the OT and SLP also work on feeding skills




Identify strategies that mother feels the family can implement and that address issues the family has identified as problems.

34

Justin: Improved Interventions

- Make a referral to a community feeding team at an early intervention center
- OUTCOME: appointment will be scheduled
- Give mother a handout about development of feeding skills
- Suggest the family be seen by a feeding therapist
- Suggest that the OT and SLP also work on feeding skills




This may involve contacting Justin's primary care provider to initiate the referral, or simply contacting the early intervention center if Justin is already receiving services there

35

Justin: Improved Interventions

- Contact OT and SLP to discuss a plan to address Justin's feeding skills
- OUTCOME: RD, OT and SLP will develop list of feeding-related recommendations for Justin before next nutrition appointment
- Give mother a handout about development of feeding skills
- Suggest the family be seen by a feeding therapist
- Suggest that the OT and SLP also work on feeding skills



As the plan is developed, short term outcomes that measure Justin's feeding skills can be developed

36

Justin



Goals for nutrition therapy:


- Maintain adequate intake and appropriate growth
- Improve feeding skills
- Prevent overweight



Other nutrition therapy goals for Justin include...

37

Further thought...



Are your current nutrition plans written with specific action plans and measurable outcomes?

- If yes - did you learn anything more from this discussion? What?

- If no,

What do you think would be the result of writing improved nutrition goals and interventions?

What would you be able to do with this information?


Does your current or developing electronic medical record system allow for your nutrition plans to be written in these ways?

Would you need to change any of your notes or reports to reflect these types of goals and action plans?

38

Conclusion

- Resource sheet
- Post-test and evaluation



Review "Resource" handout

Review local resource handout, if you have prepared one, or discuss and generate a list of local resources.

Ask the participants to complete the post-test and evaluation form and turn them in to receive their certificate of completion.