Nutrition Assessment Module

NUTRITION CARE PROCESS

PART 1: INTRODUCTION — NUTRITION & HEALTH

Nutrition is a powerful determinant of health outcomes across all populations:

Population	Impact of Nutrition
Hospitalized Patients	Nutritional status affects recovery, complications, and mortality
Older Adults	Appetite changes, weight loss, and psychological well-being
Chronic Conditions	Diabetes, heart disease, and cancer — all influenced by nutrition

Key Concept: Nutritional deficiencies are directly associated with morbidity and mortality.

PART 2: HISTORICAL PERSPECTIVE — EVIDENCE THROUGH TIME

Milestone Studies That Shaped Nutrition Assessment

Year	Investigator	Finding
1860	Nightingale	Wounded soldiers with healthy diet had higher survival
1936	Studley	Pre-operative weight loss → more complications + higher mortality
1988	Windsor & Hill	Strong connection between unintentional weight loss and health outcomes
2015	Tarrant et al.	>10% weight loss → higher postoperative complications in adolescents

The Bottom Line: Weight loss = clinical red flag.

PART 3: NUTRITION CARE PROCESS (NCP) — OVERVIEW

What is the Nutrition Care Process?

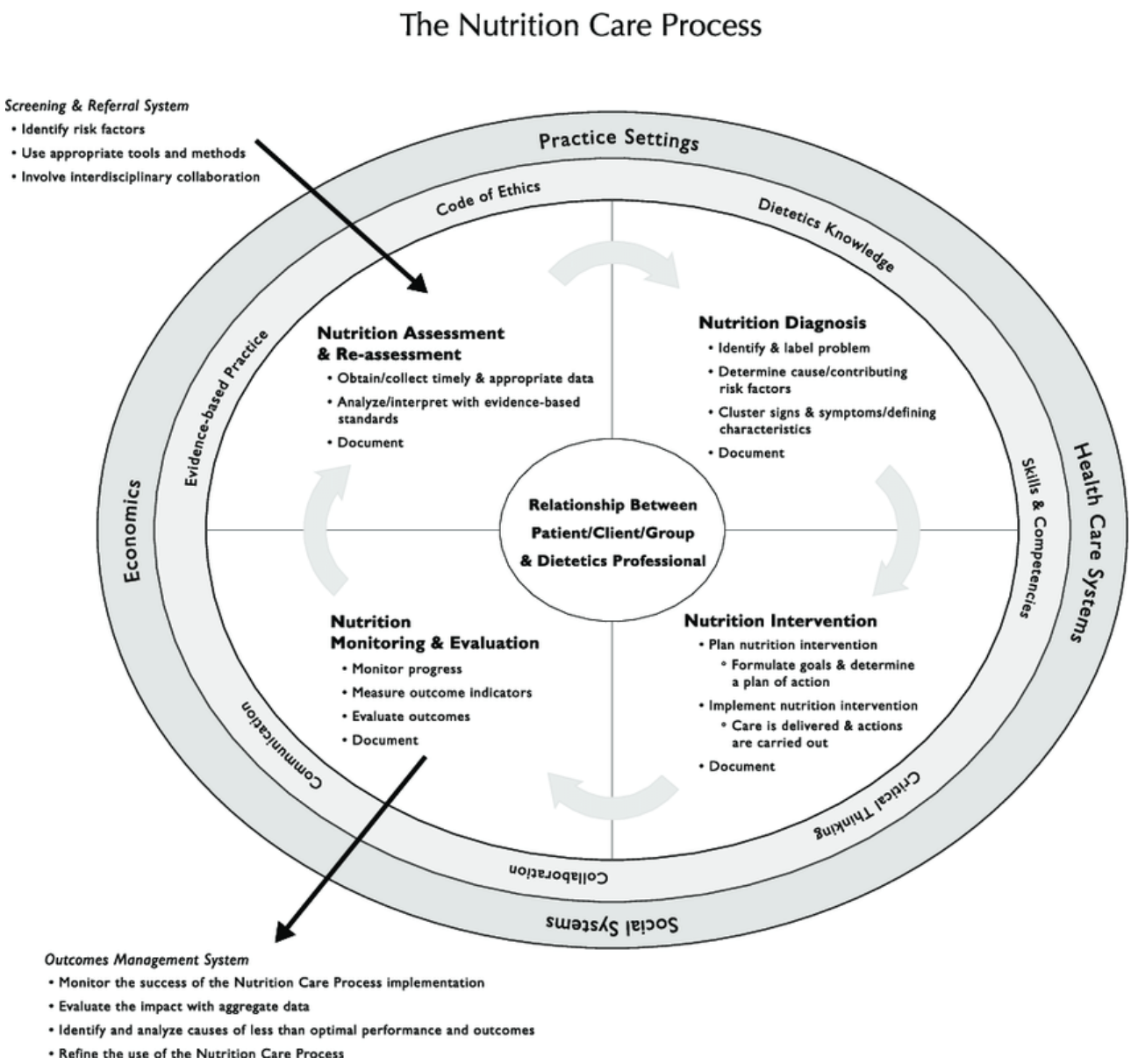
"A standardized problem-solving approach for identifying, planning for, and meeting nutritional needs."

Why NCP Matters:

Consequence of Malnutrition	Impact
Morbidity	↑ Disease complications
Length of hospital stay	↑ Days = ↑ Cost
Mortality	↑ Death risk

Healthcare costs	↑ $$$$$$

The NCP Model



PART 4: STEP 1 — NUTRITION SCREENING

Definition

"A process to identify an individual who is malnourished or who is at risk for malnutrition to determine if a detailed nutrition assessment is indicated."

Key Points:

- **Purpose:** Identify at-risk individuals
- **Who performs it:** Dietitian, dietetic technician, dietary manager, nurse, or physician
- **Outcome:** At-risk patients referred to Registered Dietitian (RD)

Screening vs. Assessment

Feature	Screening	Assessment
Purpose	Identify risk	Diagnose problem
Depth	Quick/brief	Comprehensive
Who	Multiple professionals	Dietitian
Outcome	Referral	Nutrition diagnosis

PART 5: STEP 2 — NUTRITION ASSESSMENT

Definition: "The process by which dietetics professionals collect and analyze data about an individual, group, or population to determine if a nutrition diagnosis is present."

The ABCD Framework

A: Anthropometric Assessment

Measurement	What It Assesses
Height	Growth, baseline
Weight	Status, change
BMI	Weight classification
Waist circumference	Central obesity
Skinfold thickness	Body fat %
Mid-arm circumference	Muscle mass

B: Biochemical Assessment

Laboratory Test	Nutritional Indicator
Albumin	Protein status
Prealbumin	Recent protein intake

Hemoglobin/Hct	Anemia, iron status
Glucose	Diabetes risk
Lipid profile	Cardiovascular risk
Electrolytes	Fluid/electrolyte balance
Vitamin/mineral levels	Specific deficiencies

C: Clinical Assessment

Component	**What to Look For**
Medical history	Conditions affecting nutrition
Medications	Drug-nutrient interactions
Physical exam	Signs of deficiency/excess
Functional status	Ability to eat/obtain food
Psychological status	Appetite, depression, cognition

Clinical Signs of Malnutrition

Body System	**Signs of Deficiency**
Hair	Thin, brittle, easily pluckable
Skin	Dry, scaly, poor wound healing
Eyes	Night blindness, Bitot spots
Mouth	Angular stomatitis, glossitis
Nails	Spooning, brittle
Muscles	Wasting, weakness

D: Dietary Assessment

Method	**Description**	**Pros**	**Cons**
24-hour recall	Patient recalls all food in the past 24h	Quick, easy	May not represent usual intake
Food frequency questionnaire	How often are foods eaten	Captures patterns	Relies on memory
Food diary/record	Patient records food in real time	Accurate	High burden may change behavior
Diet history	In-depth interview	Comprehensive	Time-consuming

PART 6: STEP 3 — NUTRITION DIAGNOSIS

What is a Nutrition Diagnosis? It is "Identify and label the nutrition problem."

IMPORTANT:

Nutrition diagnosis is NOT the same as medical diagnosis.

Medical Diagnosis	Nutrition Diagnosis
Diabetes	Excessive carbohydrate intake
Hypertension	Excessive sodium intake
Stroke	Swallowing difficulty

Three Categories of Nutrition Diagnosis

Domain	Focus	Example
INTAKE (NI)	Too much/too little of something	Excessive energy intake (NI-1.5)
		Excessive fat intake (NI-5.6.2)
CLINICAL (NC)	Medical/physical conditions	Swallowing difficulty (NC-1.1)
BEHAVIORAL/ENVIRONMENTAL (NB)	Knowledge, access, behavior	Food-related knowledge deficit (NB-1.1)

Standardized Terminology:

Each diagnosis has a unique **code** (e.g., NI-1.5, NC-1.1, NB-1.1) — this ensures consistency in documentation. The nutrition diagnosis codes come from the International Dietetics & Nutrition Terminology Reference Manual, published by the Academy of Nutrition and Dietetics.

PES Statement Format

A complete nutrition diagnosis is written as:

[Problem] related to [Etiology] as evidenced by [Signs/Symptoms]

Example:

"Excessive energy intake (NI-1.5) related to frequent consumption of high-calorie fast foods as evidenced by 120% of estimated energy needs and weight gain of 5 kg in 3 months."

PART 7: STEP 4 — NUTRITION INTERVENTION

Definition: "Plan and implement purposeful actions to resolve or improve the identified nutrition problem."

Key Features of an Appropriate Plan

Feature	Description
Bring about change	Aimed at improving status
Set goals and expected outcomes	Measurable, time-bound
Client-driven	Patient-centered, realistic
Evidence-based	Based on scientific principles

Types of Interventions

Category	Examples
Food/nutrient delivery	Meal planning, supplements, tube feeding
Education	Teaching about food choices, label reading
Counseling	Motivational interviewing, behavior change
Coordination of care	Referrals, team meetings

PART 8: STEP 5 — NUTRITION MONITORING & EVALUATION

Definition: "Determine the progress that is being made toward the client's goals or desired outcomes and determine the effectiveness of the intervention plan."

Monitoring vs. Evaluation

Activity	Definition	Example
Monitoring	Review and measurement of status at scheduled times	Weigh the patient weekly
Evaluation	Systematic comparison with previous status, goals, or standards	Compare the current weight to last month; is the goal met?

What to Monitor

Domain	Examples
Anthropometric	Weight, BMI, growth
Biochemical	Labs, nutrient levels
Clinical	Symptoms, physical findings
Dietary	Intake, adherence
Behavioral	Knowledge, skills, barriers

PART 9: OPPORTUNITIES IN NUTRITION ASSESSMENT

Practice Settings

Setting	Application
Health-Care Organizations	Hospitals, clinics, long-term care
Diabetes Mellitus	Glycemic control, weight management
Weight Management	Obesity, underweight, and eating disorders
Heart Disease	Lipid management, sodium restriction
Cancer	Cachexia, treatment side effects

Nutrition assessment identifies modifiable risk factors for intervention!

Conclusions:

1. Malnutrition increases morbidity, mortality, length of stay, and costs.
2. Registered Dietitians are responsible for the diagnosis and treatment of malnutrition.
3. Nutrition diagnosis ≠ Medical diagnosis.
4. Documentation supports every step of NCP.
5. Screening identifies risk; Assessment confirms diagnosis.

End of module 2…