PERÚ Ministerio de Salud

Aseguramiento Universal en Salud

HEALTH STANDARD FOR THE MONITORING OF GROWTH AND DEVELOPMENT OF CHILDREN UNDER FIVE YEARS OF AGE

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2011

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If any institution or person that contributed to the preparation or review of this document was mistakenly omitted, we offer our sincerest apologies.

MINISTRY OF HEALTH **No 990 - 2010/MINSA**

Ministerial Order

Lima, 20 DECEMBER 2010

Having regard to Dossier No. 09-099790-001, containing Memorandum No. 3618-2010-DGSP/MINSA of the Department of Human Health and Report No. UCN-105-2010-SG/MINSA of the Secretariat General;

WHEREAS:

Article 2 of Law 27657 (Ministry of Health Law) establishes that the Ministry of Health is the governing body of the Health Sector which guides, regulates, and promotes the activities of the National Health System, with the aim of achieving human development through promotion, protection, recovery, and rehabilitation of their health and the development of a healthy environment, while respecting the fundamental rights of the individual from their conception through natural death;

Z. Solís V.

Article 41 of the Regulations on the Organization and Functions of the Ministry of Health, approved by Supreme Decree No. 023-2005-SA, provides that the Department of Human Health is the technical regulatory body in processes relating, among others, to comprehensive care;

By way of the document in question the Director of Human Health has submitted for approval the draft of the Health Standard for the Monitoring of Growth and Development of Children Under Five Years of Age, with the aim of contributing to the comprehensive development of children from zero to five years of age through prompt and regular assessment of growth and development and early detection of risks, disturbances, or disorders in order to facilitate prompt access to effective treatment interventions;

In considering the proposal of the Department of Human Health;

W. Olivera A.

With the endorsement of the Director of the Department of Human Health, the Director of the General Office of Legal Advisory, and the Vice Minister of Health, and,

D. León Ch.

In accordance with Item l) of Article 8 of Law 27657 (Ministry of Health Law);

Z. Solís V.

IT IS HEREBY RESOLVED:

Article 1. To approve NTS No. 087 - MINSA/DGSP - V.01 "Health Standard for the Monitoring of Growth and Development of Children Under Five Years of Age", which forms an integral part of this Ministerial Order.

Article 2. The Department of Human Health, through its Comprehensive Healthcare Division, is responsible for the dissemination of this Health Standard.

Article 3. To order the General Communications Office to publish this Ministerial Order on the Health Ministry Internet Portal, at the following address: http://www.minsa.gob.pe/transparencia/dge.normas.asp.

For registration, communication, and publication.

N. Olivera A.

D. León Ch.

OSCAR RAUL UGARTE UBILLUZ
Minister of Health

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INTRODUCTION

The comprehensive development of childhood is fundamental to human development and the building of social capital, elements which are considered to be primary and necessary in order to break the cycle of poverty and reduce inequality.

Growth is expressed in the increase in weight and height, and development is defined as changes in the physical, neurological, cognitive, and behavioral structures which emerge in an orderly manner and are relatively lasting. It is a process that begins during intrauterine life and involves various aspects ranging from the child's physical growth to their neurological, behavioral, cognitive, social, and emotional maturation.

Recent studies demonstrate the importance of development in early childhood with respect to the forming of intelligence, personality, and social behavior. In this regard, if young children do not receive the care and attention they need during these formative years, the consequences are cumulative and prolonged. As such, providing children with opportunities for appropriate growth and development is one of the priorities of the family, governments, organizations, and the community in general.

The WHO estimates that 10% of the population of any country is comprised of people with some type of disability. The 2007 National Population and Housing Census included inquiry into the presence in a household of any member with a disability. A person with a disability is understood to be any person that has a permanent physical or mental impairment that limits one or more activities of daily life. The census results indicate that in 735,334 homes, representing 10.9% of the total homes in the country, there is at least one person with a physical or mental disability, while in 89.1% of homes (6,018,740 homes) there are no people with a disability[1].

1 INEI - 2007 National Census: 11th Population Census and 6th Housing Census.

At present, it is unknown how many Peruvian children are delayed in their mental, motor, social, or emotional development as a result of a deficient health and nutrition and an adverse physical environment during gestation, birth, and early years of life in situations of exclusion. However, according to the results of the most recent 2010 ENDES survey[2], we know that 17.9% of children under five years old suffer from chronic malnutrition and 50.3% of children from 6 to 36 months of age suffered from nutritional anemia. These data suffice to assume that these children will have deficiencies in their development, given that the delay in physical growth and the presence of anemia are two important markers of environments adverse to growth and development.

In this context, it is of singular importance to perform *monitoring of the growth and development of children* in order to improve their comprehensive development through early detection of risks, disturbances, or disorders in these processes for prompt intervention, as well as to promote appropriate care and child-rearing practices at the family and community level.

This **"Health Standard for the Monitoring of Growth and Development of Children Under Five Years of Age"** is provided by the Health Ministry to all management teams and care providers at Health Sector organizations, establishing the technical provisions for prompt and regular assessment of the growth and development of children under five to identify risks or disorders in growth and development in a timely manner and to provide effective intervention.

Ministry of Health

2 INEI - Demographic and Family Health Survey, ENDES 2010.

I. PURPOSE

To contribute to the comprehensive development of children from zero to five years of age and to improve their health and nutrition.

II. OBJECTIVES

2.1. To establish the technical provisions for prompt and regular assessment of the growth and development of children under five years of age, and to disseminate these provisions among health personnel.
2.2. To identify situations of risk or impairments in growth and development in a timely manner for effective intervention, encouraging the active participation of the family and caregivers in interventions to achieve normal development.
2.3. To monitor and evaluate the impact of the interventions carried out by the health team on the growth and development of children.

III. SCOPE OF APPLICATION

Application of this Health Standard is mandatory in all Health Sector establishments nationwide (health establishments of the Ministry of Health, EsSalud, Armed Forces, National Police, Regional Governments, Local Governments, Clinics, and Private Sector entities), as appropriate.

IV. LEGAL BASIS

1. Law No. 26842, General Health Law.
2. Law No. 27657, Ministry of Health Law.
3. Law No. 29344, Framework Law on Universal Health Coverage.
4. Supreme Decree No. 023-2005-SA, approving the Regulations on the Organization and Functions of the Health Ministry.

5. Supreme Decree No. 016-2009-SA, approving the Essential Health Coverage Plan (PEAS), containing the Benefit Plan with the list of Insurable Conditions, Interventions, and Benefits to be financed and the Explicit Guarantees.
6. Supreme Decree No. 009-2006-SA, approving the Child Food and Nutrition Regulations.
7. Supreme Decree No. 004-2007-SA, establishing the Priority List of Guaranteed Health Interventions, applied on a mandatory basis at all establishments receiving financing from the SIS.
8. Supreme Decree No. 003-2008-SA, approving the Priority List of Guaranteed Health Interventions for the Reduction of Chronic Child Malnutrition and Neonatal Maternal Health.
9. Ministerial Order No. 455-2001/SA/DM, approving the regulatory document titled "Standards and Procedures to Prevent and Address Family Violence and Child Abuse".
10. Ministerial Order No. 729-2003-SA/DM, approving the document titled "Comprehensive Health: Everyone's Commitment. The Comprehensive Healthcare Model".
11. Ministerial Order No. 751-2004-SA/DM, approving Health Standard No. 018-MINSA/DGSP-V1 titled "Technical Standard for Referral and Counter-referral of Health Establishments of the Ministry of Health".
12. Ministerial Order No. 292-2006/MINSA, approving Health Standard No. 040-MINSA/DGSP-V.1 titled "Technical Standard for Comprehensive Healthcare of Children".
13. Ministerial Order No. 193-2008/MINSA, approving Health Standard No. 063-MINSA/DGSP-V.01, titled "Technical Health Standard for Implementation of the Priority List of Guaranteed Health Interventions for the Reduction of Chronic Child Malnutrition and Neonatal Maternal Health".
14. Ministerial Order No. 862-2008/MINSA, approving Health Standard No. 074-MINSA/DGSP-V.01, titled "Technical Health Standard Establishing the Group of Integrated Interventions for the Reduction of Neonatal Mortality at the Primary Care Level and in the Family and Community".
15. Ministerial Order No. 707-2010-MINSA, approving Health Standard No. 084-2010-MINSA/GDSP-V.01, titled "Technical Health Standard for Care of Premature Newborns with Risk of Retinopathy of Prematurity".

V. GENERAL PROVISIONS

5.1. Working Definitions

5.1.1. Growth

The process of a living being increasing in body mass, produced by the increase in the number of cells (hyperplasia) or in their size (hypertrophy). This process is governed by nutritional, socioeconomic, cultural, emotional, genetic, and neuroendocrine factors. It is measured using anthropometric variables, such as weight, height, head circumference, etc.

5.1.2. Development

A dynamic process whereby living beings achieve greater functional capacity in their systems through phenomena of maturation, differentiation, and integration of their functions, in biological, psychological, cognitive, nutritional, sexual, ecological, cultural, ethical, social, and other aspects. It is influenced by genetic, cultural, and environmental factors.

5.1.3. Monitoring of Growth and Development

A set of periodic and systematic activities performed by a nurse or physician in order to conduct appropriate and timely monitoring of the growth and development of a child and to achieve prompt and early detection of risks, impairments, or disorders, as well as the presence of diseases, facilitating diagnosis and timely intervention and decreasing deficiencies and disabilities.

5.1.4. Risk of Developmental Disorder

The probability a child has, due to their prenatal, perinatal, or postnatal antecedents or environmental conditions (risk factors), of experiencing developmental problems during their early years of life, including cognitive, motor, sensory, or behavioral problems, whether temporary or permanent.

5.1.5. Developmental Disorder

A significant deviation from the normal "course" of development as a result of health- or environment-related incidents, compromising biological, psychological, and social evolution. Some delays in development can be offset or neutralized spontaneously, while it is often the intervention which determines the duration of the disorder. In practice, this is determined based on the development profile resulting from evaluation using the instrument defined in this standard.

5.1.6. Proper or Normal Growth

A child's condition in which they show weight gain and increase in height according to the expected normal ranges (± 2 SDs). The slope of the curve is parallel to the growth curves from the current reference standard.

5.1.7. Improper Growth or Growth Risk

A child's condition in which they show loss, minimal gain, or excessive gain of weight or height, meaning that the slope of the curve is not parallel to the growth curves from the current reference standard, even when weight/age or height/age indicators are within normal ranges (± 2 SDs).

5.1.8. Conditional Child Health, Nutrition, and Development Factors

Variables of genetic and environmental origin with nutritional, neuroendocrine, metabolic, sociocultural, psycho-emotional, and political components which positively or negatively impact a child's process of growth and development.

5.1.9. Protective Factors

Individual or relational models such as attitudes, behaviors, and adequate individual and collective circumstances, which are formed in a social environment and include aspects relating to health, education, housing, emotions, and healthy behaviors which encourage a child's growth and development.

5.1.10. Risk Factors

A detectable characteristic, circumstance, or situation that increases the likelihood of suffering from, developing, or being especially exposed to a morbid or even fatal process. These risk factors, when combined, may increase the specific effect of each factor, causing an interaction that negatively impacts a child's growth and development.

5.1.11. Early Stimulation

A set of scientifically-based actions applied systematically and sequentially in a child's care from birth through 36 months, strengthening the emotional bond between parents and children and providing the child with the experiences they need to fully develop their physical, cognitive, emotional, and social potential.

5.1.12. Collective Growth and Development Program

Group activities with parents whose children are of the same age, intended to accompany them in their children's process of growth and show them that the best way to invest in the family's future is through preventive actions that allow children to improve their skills and development. These actions are intended to strengthen communication, bringing together groups of similar age to improve the care provided to children at health establishments through a central activity and group sub-activities,

as well as individual meetings. The management model for monitoring of growth and development in children offers both an individual and collective approach, includes the parent, and focuses on developing skills to raise, care for, and protect children.[1]

5.2. All health establishments conduct monitoring of growth and development in children under five years of age, based on the corresponding level of care. Secondary and tertiary care establishments perform activities to monitor growth and development in children with a detected risk or diagnosis of impaired or disordered growth or development.

VI. SPECIFIC PROVISIONS

During monitoring of growth and development of children under five years of age, a set of procedures are carried out for regular evaluation of both growth and development. Likewise, risks or determinant factors are promptly detected, in order to make timely implementation of preventive actions and to promote appropriate practices for the child's care. To this end, the professional uses the interview, observation, clinical exam, anamnesis, laboratory exams, and application of development assessment instruments and instruments to assess physical growth, among other mechanisms. This information is recorded in the clinical history.

Monitoring of a child's growth and development is conducted in an individual, comprehensive, prompt, regular, and sequential manner.

- Monitoring is individual because each child is their own person with their own specific characteristics, and as such, they must be seen from their own context and environment.
- Monitoring is comprehensive because it covers all aspects of growth and development, i.e., the child's health, psycho-emotional development, and nutrition.
- Monitoring is prompt, in that monitoring is to be conducted at the key moment for evaluation of growth and development corresponding to the child's age.
- Monitoring is regular, in that it is to be conducted according to an individually established calendar and according to the child's age.
- Monitoring is sequential because each control activity must be related to the previous one, observing the child's progress in growth and development, particularly during periods deemed to be critical.

1 Report on Experiences in Social Innovation, 2004-2005 Cycle Finalist, Asociación Taller de los Niños: Collective Growth and Development, San Juan de Lurigancho (Peru).

6.1. Frequency of Monitoring of Growth and Development of Children Under Five Years of Age:

Table 1

Frequency of Control for Children Under Five Years of Age

Age	Number of Controls	Frequency
Newborn	2	At 7 and 15 days of age
From 1 to 11 months	11	1m, 2m, 3m, 4m, 5m, 6m, 7m, 8m and 9m, 10m and 11m
From 12 to 23 months	6	12m, 14m, 16m, 18m, 20m, and 22m
From 24 to 59 months	12 (4 per year)	24m, 27m, 30m, 33m, 36m, 39m, 42m, 45m, 48m, 51m, 54m, and 57m.

6.2. Instruments to be used for Monitoring of Growth and Development:

- Standardized Clinical History (Appendix 1), which forms part of a family file and includes:
  - Care plan.
  - Information on family and medical background.
  - Evaluation of nutrition.
  - Consultation form.
- Comprehensive care card for children under five (Appendix 2).
- Daily care log pursuant to the current system.
- Care form according to insurance system guaranteeing payment (SIS or other, as appropriate).
- Record of child's comprehensive healthcare (Appendix 3).
- Weight/age, height/age, weight/height, and head circumference curves.
- Instruments for Evaluation of Development: Children under 30 months: Abbreviated Peruvian Test (TAP). Children 3 to 4 years: Rapid Referral Guideline.
- Family Violence and Child Abuse Screening Card.

Preparation and monitoring of the individualized healthcare plan:

- The professional responsible for the monitoring of growth and development at the health establishment communicates to the parents or caregivers the importance of the individualized care plan of each child, which defines the number and frequency of evaluations, administration of micronutrients, early stimulation sessions, nutritional counseling, administration of vaccines, timely diagnosis and treatment of prevalent childhood diseases, oral health, comprehensive family visits, educational sessions, demonstration sessions, and other activities.
- The care plan guides the professional to refer families with children in situations of psychosocial risk to specialized healthcare teams and to nutritional supplementation or identification registry programs, while also facilitating identification and reinforcement of protective factors for the child's comprehensive development.

- The care plan allows health interventions to be scheduled so that they are provided in a rational, continuous, and systematic manner. This process will be carried out according to the corresponding instructions (Appendix 4).
- Monitoring of the plan is carried out at each contact the child has with the health establishment; in the event the child does not appear at the health establishment, the designated health personnel will make the corresponding home visit.

6.3. Activities and Interventions for Monitoring of Growth and Development

6.3.1. Physical Exam

General Considerations:

Adhere to biosafety measures (hand washing, disinfection of instruments, medical equipment, and furnishings) and ensure that hands are warm. The exam environment should provide comfort and privacy.

Prior to beginning the exam, observe the child to look for any warning signs and ask the adult responsible for the child simple questions regarding aspects relating to the physical and emotional integrity of the child. If the child is already speaking, their participation in the interview must be encouraged. Explain the procedures to be carried out to the parents or adults responsible for the child's care in order to obtain their collaboration, as well as that of the child. Then proceed with the exam:

- Observe how the child interacts with the parents or accompanying adult: whether they are irritable or crying, the posture of their body or the posture they adopt when the physical exam is conducted, during which the child must be nearly or entirely undressed. Begin the exam without instruments, which will be used progressively as needed.
- Respect the identity and individuality of the child and the mother (learn and remember the names of the child and parents, use a sweet and gentle voice when addressing them).
- Take vital signs: temperature, respiratory rate, pulse, and blood pressure.
- During the evaluation, act in a tender but firm manner, remaining patient and gentle during procedures and explaining the results to the parents or accompanying adult.

Age-specific Considerations:

Newborn (from 7 to 15 days)

At the health establishment

- Examine the child on the examination table.
- Perform the physical exam from top to bottom starting at the head.

Conducted by the medical professional or nurse in order to assess growth and development, identify warning signs in the newborn or the mother, verify understanding and implementation of comprehensive care of the newborn (breastfeeding, personal hygiene, umbilical cord care, vaccinations, proper clothing, affection, and identification of warning signs and actions to follow); monitoring is carried out at the health establishment.

Includes:

- Physical and neurological evaluation (Appendix 5).
- Assessment of growth and weight gain.
- Evaluation of diet and exclusive use of breastfeeding.
- Verification of sampling for neonatal screening and Rh and blood type laboratory results, pursuant to the specific standard.
- Identification and/or verification of individual, family, and environmental risk factors that may interfere with the comprehensive development of the child:
  a. Biological factors: underweight, prematurity, or congenital malformations.
  b. Environmental factors: in-home air pollution, water pollution, poverty, etc.
  c. Family factors: domestic violence, family dysfunction, excessive consumption of alcohol and/or illicit drugs by people significant to the child's care.
- Verification of early registry to obtain unique identification code, birth registry, and/or DNI.
- Verification of newborn's vaccinations pursuant to the present regime.
- Identification of warning signs.
- Advisory on comprehensive care of the newborn (breastfeeding, personal hygiene, umbilical cord care, vaccinations, proper clothing, affection, identification of warning signs, and actions to follow).
- Verify the newborn's enrollment with the health insurance system, as appropriate.
- Inform the mother and family of programs for social support and rights protection at a local level.

Home Visit

Activity performed by trained health personnel in order to carry out actions to train, monitor, and follow up on the family of the newborn, assess essential neonatal care, verify and reinforce key practices in the care of the newborn (breastfeeding, hand washing, personal hygiene, umbilical cord care, vaccinations, proper clothing, affection, identification of warning signs, and actions to follow).

- For children born at health establishments, within 48 hours of discharge.
- For children born at home, immediately upon becoming aware of the birth.
- For those who fail to appear for monitoring within 48 hours after the date of the appointment.

From one to six months:

- Begin the exam, preferably with the child on the mother's lap, and continue the evaluation on the examination table.
- Begin with chest exam, then continue according to the description in Appendix 5.

From seven months to two years:

- Encourage the child's active participation.
- Begin with chest exam, then continue according to the description in Appendix 5.
- Respect the identity (calling them by their name) and emotional state of the child.
- Verify access to a program for social support of rights protection, as appropriate.

From two to four years:

- Respect the identity (calling them by their name) and emotional state of the child; allow the parents to remain present.
- Begin the physical exam at the head, moving from top to bottom according to the description in Appendix 5.
- Examine the child on the examination table; most of the exam can be performed with the child sitting or standing, encouraging the child's participation.
- Take advantage of the opportunity to teach the child, according to their age, about their rights, self-care, appropriate level of trust with strangers, diet, and hygiene. Encourage trust in the interaction and rely on the parents if something upsets or bothers the child.

6.3.2. Detection of prevalent diseases, visual or auditory problems, oral health, and signs of violence or abuse.

General Considerations

Conducted during each control visit or contact between the child and health services, through identification of signs and symptoms or using diagnostic assistance procedures.

6.3.2.1. Detection of Prevalent Diseases

- Detection of acute respiratory infections and acute diarrheal illness; conducted following the AIEPI methodology[2].
- Detection of anemia and parasitosis is conducted through laboratory exams.
- At all health establishments, the professional performing monitoring of growth and development is responsible for making the request to confirm absence of anemia and parasitosis for all children under five years of age, according to the system defined below:

2 Ministerial Order No. 506-2005/MINSA

- Dose of hemoglobin or hematocrit to confirm absence of anemia from 6 months through 4 years of age, once annually.
- Serial stool exam and Graham Test to confirm absence of parasitosis beginning at one year of age, once annually.

- The exams will be conducted at those health establishments that have the necessary equipment, otherwise children will be referred to an establishment with the corresponding capacity, following the established procedures for referral and counter-referral[3].
- Treatment and follow-up of cases is the responsibility of the health personnel according to the establishment's category. The procedure is conducted in each case according to the current guidelines for clinical practice.
- In those areas identified as priority areas pursuant to epidemiological criteria, in order to prevent development of intestinal parasitosis due to soil-transmitted helminths, the professional performing monitoring of growth and development is responsible for prescribing antiparasitic prophylaxis according to the system defined below:
  - Mebendazole (500 mg orally) or Albendazole (400 mg) in a single dose every 6 months beginning at two years of age.

6.3.2.2 Detection of Visual Impairments

- Detection of visual impairments will be carried out by way of a vision exam, the procedure for which is detailed in Appendix 6.
- The vision examination for all children under 5 years of age will be performed by the nursing professional, pediatrician, or general practitioner responsible for monitoring of growth and development.
- In 100% of premature newborns, completion of secondary prevention of Retinopathy of Prematurity (ROP) will be verified, as stipulated in NTS No. 084-2010-MINSA/DGSP.V.01.

6.3.2.3 Detection of Hearing Impairments

- During monitoring of growth and development, the nursing professional, pediatrician, or general practitioner responsible for care will consider the following as indirect signs of hearing impairment:
  - Does not react to unexpected sounds.
  - Does not turn head in the direction of the sound of a voice.
  - Does not understand orders.
  - Poor language development. If a child does not babble at 11 months, they must immediately be referred for a hearing test.
  - Speaks loudly or does not use language appropriate for their age.
  - In pre-school ages, learning disorders of various degrees.
  - Observation and family impressions.

3 Health establishments lacking a laboratory with no hemoglobinometer, use this method for the dose of hemoglobin.

- All children with risk indicators must be referred to the corresponding level of care to be evaluated by a specialist in order to perform otoacoustic emissions or evoked auditory potentials testing during the neonatal period or during the first months of life.
- The following are considered neonatal auditory risk indicators: Family history of congenital sensorineural hearing loss with onset in early childhood; intrauterine infections (TORCH), craniofacial malformations, birth weight less than 1,500 g, severe hyperbilirubinemia, use of ototoxic drugs, bacterial meningitis, perinatal hypoxia-ischemia, mechanical ventilation for more than 5 days or more than 48 hours at a neonatal Intensive Care Unit.
- For children older than 28 days, the following are considered Risk Indicators: Suspected hearing loss or language delay, bacterial meningitis or other infections that may occur with hearing loss, cranial trauma with loss of consciousness or cranial fracture, use of ototoxic drugs, and recurrent or persistent secretory otitis media.

6.3.2.4. Detection of Oral Health Problems:

- During monitoring of growth and development, the nursing professional, pediatrician, or general practitioner responsible for care will conduct examination of the oral cavity.
- All children with risk factors, abnormalities, or congenital malformations in the oral cavity will be referred to the corresponding level of care to be evaluated by a specialist.
- During each check-up guidance must be provided to the mother or caregiver on oral hygiene habits for prevention of dental cavities.
- Beginning at two years of age, children must be evaluated by a professional dentist.

6.3.2.5. Detection of Family Violence and Child Abuse:

a. Detection of child abuse and violence is performed at each check-up or contact the child has with health services, whether those services are provided at a fixed establishment (health establishments, other community scenarios) or through mobile services (brigades or mobile teams). The "Family Violence and Child Abuse Screening Card" (Appendix 7) must be applied.
b. Detection of child abuse and violence begins by seeking out risk factors and protective factors in the opening of the clinical history, gathering information on psychosocial aspects, family dynamics, etc. This information must be updated at all subsequent check-up assessing the quality of the emotional bond between parents and child, care provided for children, presence of symptoms suggesting abandonment, negligent care, emotional deprivation, parents' attitudes toward the establishing of rules and limits (physical punishment, disproportionate verbal corrections, etc.).

c. During care, it is important to act in a kind and empathetic manner when cases of corporal punishment are observed (spanking, shaking, threats, reprimanding with physical abuse, etc.), providing guidance to the mother on the child's rights and the impact of violence on the child's self-esteem and subsequent development. Explore and identify situations of domestic violence or abuse against women as an effective means of preventing child abuse; in these cases, make immediate referral pursuant to current law and provide information on opportunities and agencies for local support (rights advocacy groups, DEMUNA, etc.).

d. During individual or group counseling, based on the age of the child, their requirements and problems relating to each stage of development will be addressed. Parents or caregivers will be presented with alternative methods of discipline, positive reinforcement of good behavior, establishing objectives and agreements to improve dialog between parents and children, and strengthening their self-esteem. Identify resources for psychological, occupational, social, or economic support existing at a community level in order to establish a referral system.

e. Handling of cases of child abuse and violence and the corresponding follow-up will be carried out in accordance with the current Technical Standard.

6.3.3. Micronutrient Supplementation.

6.3.3.1. Iron Supplementation.

- Preventive iron supplementation for children from six months to thirty-five months of age[4]
- The purpose of supplementation is to prevent anemia due to lack of iron, which results from insufficient ingestion, excessive loss, limited reserves, or increased demand for ion. It is prescribed by the professional conducting the monitoring of the child.
- In children over 12 months and under 36 months, the iron supplement will be administered continuously for 6 months per year.
- Preventive administration of iron supplement must be suspended when children are receiving antibiotics.
- In children under 36 months residing in zones with endemic malaria, the presence of this disease must be ruled out (identification of the parasite) and treatment must be given before beginning supplementation.[5]
- The iron supplement does not constitute the child's total iron requirement, and as such, simultaneous to supplementation, the following must be encouraged: increased consumption of animal-based foods rich in iron and with high bioavailability, improved consistency and increased frequency of meals, increased consumption of foods rich in vitamin C, consumption of foods fortified with iron (wheat flour or other foods intended for at-risk populations), and avoidance of substances that inhibit iron absorption, such as carbonated beverages, infusions, coffee, etc.

4 Evidence indicates that this is the most advantageous age.

5 "Infant and Small Child Feeding: Model Chapter for Text Books for Students of Medicine and Other Health Sciences" Washington, D.C.: PAHO, ©2010.

- The health personnel conducting monitoring of growth and development at the establishment is responsible for follow-up and for developing strategies to ensure adherence to the supplementation process (home visit, counseling, etc.).
- The home visit will be made in a number no less than three during the duration of the supplementation process.
- The health personnel performing monitoring of growth and development at the health establishment will guarantee the dose of hemoglobin for all children beginning at six months of age once annually, in order to rule out anemia.

Iron supplement regime:

- In children from 6 to 35 months, born at term and with normal birth weight, administer 35 to 40 mg of elemental iron per week beginning at 6 months of age and for a period of 6 months per year[6].
- In children born premature, 2 mg of elemental iron/kg of weight/day is prescribed from the second month for a period of 12 months.

6.3.3.2. Vitamin A Supplementation

Supplementation with Vitamin A is provided for children from priority areas based on the prevalence of morbidity from frequent infectious disease and levels of poverty and extreme poverty.

- It is prescribed by the professional conducting the monitoring of the child at the priority health establishments.

Vitamin A Supplementation Regime *

Age	Dose	Frequency
Children: 6 to 11 months	100,000 UI	Once every 6 months
Children: 12 to 59 months	200,000 UI	Once every 6 months

Source: World Health Organization - 2000.

6.3.4. Assessment of growth and nutritional status

6.3.4.1. Anthropometric assessment: weight, height, and head circumference.

- Performed for all children from birth through 4 years 11 months and 29 days of age at each check-up or contact the child has with health services, whether those services are provided at a fixed establishment (health establishments or other community scenarios) or through mobile services (brigades or mobile teams), based on the established criteria (Appendices 8 and 8.1).
- Head circumference is measured through 36 months of age.
- Weight and height values are used both for assessment of growth and of nutritional status.

6 In the case of iron sulfate in tablets, syrups, and pediatric drops, it is recommended that the concentration be verified so that the quantities administered in milliliters cover the required weekly dose. See specific guide.

Monitoring and Evaluation of Growth.

- Performed for all children from birth through 4 years 11 months and 29 days of age at each check-up or contact the child has with health services, whether those services are provided at a fixed establishment (health establishments or other community scenarios) or through mobile services (brigades or mobile teams).
- Monitoring and evaluation of growth is performed using anthropometric measurements (weight, height, and head circumference), which are taken at each contact the child has with health services and are compared to the current reference standards, determining the growth trend.
- Through growth monitoring process is evaluated in terms of weight gain and height according to the child's age and the reference standards.
- Growth monitoring is performed by taking two or more reference points from the growth parameters and graphing those points so they are connected in a line called the growth curve, which represents the best reference standard for individual monitoring of the child.
- The child's growth, based on the trend, is categorized as:

  a. Adequate growth:

     A child's condition in which they show weight gain and increase in height according to the normal ranges expected for their age (± 2 SDs). The slope of the curve is parallel to the growth curves from the current reference standard.

  b. Inadequate growth:

     A child's condition in which they show a lack of gain (flattening out of the curve) or minimal gain in height, or loss, minimum gain, or excessive gain in weight; as such, the slope of the curve is not parallel to the growth curves from the current reference standard, even when weight/age or height/age indicators are within normal ranges (± 2 SDs).

Growth Condition	Annotation	Meaning	Behavior to follow
Adequate growth		Sign of proper growth, reflected in a favorable increase in the child's weight and height, comparing one control visit to another. The trend is parallel to the reference standard. The values of anthropometric measurements are within a normal range (+/- 2 SDs).	Congratulate the parents or adults responsible for the child's care, encourage appropriate habits in the child's care, and schedule the next control according to the current system.
Inadequate growth (Warning Sign)		Sign of improper growth, reflected in a lack of increase in the child's weight or height, comparing one control visit to another. The trend is not parallel to the reference standard. The values of anthropometric measurements are within a normal range (+/- 2 SDs).	Explore and identify the causal factors of inadequate growth, analyze them, and establish measures and agreements together with the parents or adults responsible for the child's care. Schedule control visits at intervals from 7 to 15 days according to need until recovery is achieved (trend in growth parallel to the reference standard) and if deemed necessary, refer for evaluation and treatment.
		Sign of improper growth, reflected in a lack of increase in the child's weight or height, comparing one control visit to another. The trend is not parallel to the reference standard. The values of anthropometric measurements are within a normal range (+/- 2 SDs).	
		Sign of improper growth, reflected in a decrease in the child's weight, comparing one control visit to another. The trend is not parallel to the reference standard. The values of the anthropometric measurement are within a normal range (+/- 2 SDs).	
		Sign of improper growth, reflected in an excessive weight gain for the child's age, comparing one control visit to another. The trend exceeds the reference curve.	

6.3.4.2. Classification of Nutritional Status.

- Conducted at each check-up or contact the child has with health services.
- For classification of nutritional status according to the child's age, the following indicators will be used:

Indicator	Age group to be used
Weight for gestational age	Newborn (a)
Weight for age (weight/age)	≥ 29 days to < 5 years
Weight for height (weight/height)	≥ 29 days to < 5 years
Height for age (height/age)	≥ 29 days to < 5 years

Classification of Nutritional Status in Newborns

Weight for gestational age. To determine the nutritional status of a newborn using the weight for gestational age indicator, the weight of the child at birth must be assessed based on gestational age (Capurro Test, Appendix 5) and according to the table (Appendix 5). The nutritional status of the newborn according to weight for gestational age is categorized as follows:

Weight for gestational age

Cutoff point	Classification
< P10	Small for gestational age (malnourished or delayed intrauterine growth)
P10 to P90	Appropriate for gestational age
>90	Large for gestational age (macrosomia)

Source: Center for Disease Control CDC 2000.

Weight at birth. Weight at birth is a survival or risk indicator for the child. The nutritional status of the newborn according to weight at birth is categorized as follows:

Classification according to birth weight

Cutoff point	Classification
< 1,000 grams	Extremely low
1,000 to 1,499 grams	Very low birth weight
1,500 to 2,499	Low birth weight
2,500 to 4,000 grams	Normal
> 4,000 grams	Macrosomal

Categorization of nutritional status in children over 29 days and under 5 years of age. This will be performed based on a comparison of indicators for weight/age, height/age, and weight/height with the current Reference Standards.

Categorization of nutritional status in children over 29 days and under 5 years of age

Cutoff points	Weight for age	Weight for height	Height for age
Standard Deviation	Classification	Classification	Classification
>+ 3		Obesity	
>+ 2	Overweight	Overweight	High
+ 2 to – 2	Normal	Normal	Normal
< - 2 to – 3	Malnutrition	Acute Malnutrition	Low Size
< - 3		Severe malnutrition	

Source: Adapted from World Health Organization (2006).

If the weight/age or height/age indicators are within normal ranges (± 2 SDs) for the cohort and the trend of the child's graph is not parallel to the growth curves from the current reference standard, they are considered to be at Nutritional Risk.

6.3.4.3. Handling and follow-up for growth and nutritional problems (Appendix 8.2).

When there is evidence of inadequate growth (nutritional risk), explore and identify the causing factors:

a. If the cause is related to the presence of disease, refer the child to a physician for treatment and monitoring of the pathology or treat the child according to clinical guidelines.
b. Appointments for growth monitoring are scheduled at seven-day intervals, according to need, until recovery is achieved. (growth trend parallel to the reference standard), emphasizing counseling during these monitoring visits on nutrition during the process of the disease and after the morbid process.
c. Schedule a home visit to support parents in the adopting of appropriate feeding and care practices.
d. If the cause is related to inadequate feeding and care practices, conduct nutritional counseling sessions and as part of this establish measures and agreements together with the parents or adults responsible for the child's care, as required.
   Handling and follow-up for cases of malnutrition is performed according to the current guidelines for clinical practice.

6.3.5. Assessment of development

Prior Considerations

- Assessment of development is performed for all children from birth through 4 years 11 months 29 days of age according to the frequency indicated in Table 1 and is the responsibility of the nursing professional.
- Assessment of development is performed at each check-up according to the current regime and, if possible, at each contact the child has with health services, whether those services are provided at a fixed establishment (health establishments, other community scenarios) or through mobile services (brigades or mobile teams).
- The assessment of development is based on observation and application of development scales, which allows detection of so-called warning signs (clinical expression of a deviation from the normal course of development. which does not necessarily imply presence of a neurological pathology, though detection requires rigorous follow-up for the child, and if the deviation persists, a therapeutic intervention is initiated).

6.3.5.1. Instruments for Assessment of Development in Children Under 5 Years of Age

Children from 0 to 30 months: Peruvian Child Development Test (TPD) (Appendix 9). This test determines the child's profile across 12 lines of development, corresponding to different behaviors:

a. Motor/postural behavior, which includes the following lines of development:
   Head and trunk control, sitting.
   Head and trunk control, rotations.
   Head and trunk control, moving.
e. Visual/motor behavior, which includes the following lines of development:
   Use of arm and hand.
   Vision.
e. Language behavior, which includes the following lines of development:
   Hearing.
   Language comprehension.
   Language expression.
e. Personal/social behavior, which includes the following lines of development:
   Diet, clothing, and hygiene.
   Play.
   Social behavior.
e. Intelligence and learning.

Children from 3 to 4 years: Abbreviated Psychomotor Development Test (TA) or Rapid Referral Guideline (PB, Pauta Breve) (Appendix 9). This test measures performance in language, social, coordination, and motor skills.

Considerations Prior to Evaluation

- Evaluation must be performed with the participation of the parents or person responsible for the child's care, in an appropriate environment (no irritating noises), with comfortable clothes, attempting to make the child feel less fearful. The developmental achievements that the child should attain according to their age will be explained to the parents, so that they can provide adequate encouragement at home.
- During the first evaluation, explore the existence of any risk factors for development.
- For application of evaluation instruments, the nursing professional must be an expert on the guide and respective battery for each test, ensuring that during the evaluation the examiner's attention is focused on the child and not on the printed material.
- The instruments must only be administered if the child is relaxed and demonstrates appropriate health condition. if the child is crying, irritable, tired, or sick, provide guidance to the parents and/or caregivers of the child and make an appointment for later evaluation.
- Monitoring of growth and development of children born premature must be performed at level 2 or 3 health establishments and is the responsibility of the pediatrician, nursing professional, or general practitioners; corrected age must be used through 2 years of age.

Criteria for Interpretation of Results

- The results will be interpreted according to the instrument used:
- Evaluation of children from 0 to 30 months using the Peruvian Child Development Test. Results can be:
  a. Normal development: When the child performs all behaviors evaluated according to the corresponding chronological age.
  b. Risk of developmental disorder: When the child performs all behaviors evaluated according to the corresponding chronological age and has one risk factor according to Appendix 9.
  c. Developmental disorder: When the child does not perform one or more of the behaviors evaluated according to the corresponding chronological age and their profile shows:
     Deviation to the left of one month in one milestone
     Deviation to the left of one month in two or more milestones.
     Deviation to the left of two months in one milestone.
     Deviation to the left of two months in two or more milestones.
     Deviation to the left in one milestone, associated with a risk factor.
- For evaluation of children aged 3 to 4 years using the Abbreviated Psychomotor Development Test (TA) or Rapid Referral Guideline (PB, Pauta Breve), the results can be:
  a. Normal development: When the child performs all behaviors evaluated according to the corresponding chronological age.

b. Developmental deficit: When one or more of the behaviors evaluated in the child are being developed or the child does not perform them.

6.3.5.2. Handling of developmental disorders according to degree of complexity and capacity for resolution (Appendix 9).

- During assessment of development, the professional will show and explain to the child's parents or caregivers the method and guidelines for the child's stimulation according to the results obtained:
  a. Normal development: Congratulate the parents or caregivers and mention the child's achievements associated with the practices performed. Explain and demonstrate measures and guidelines for stimulation and control according to the calendar based on the child's age and development level.
  b. Risk of developmental disorder: Assess with the parents or persons responsible for the child's care the risk factor or situation detected and identify mechanisms to reduce it. Explain and demonstrate measures and guidelines for stimulation. In these cases, the family must be involved in follow-up to guarantee monitoring according to the calendar based on the child's age and development level.
  c. Developmental disorder: Handling will be based on the causal factors identified and according to the description below:

     » If the profile shows deviation to the left of one month in one or more milestones: Explain and demonstrate to the child's parents or caregivers the measures and guidelines for stimulation to be performed at home relating to the factors and disorder identified for a period of two months, according to the development regime. Perform at minimum one home visit prior to the subsequent check-up. Reevaluate the child each month. If after two months of follow-up with stimulation measures, the child does not improve, refer them to the higher-level health establishment.

     » If the profile shows deviation to the left of two or more months in one or more milestones or the profile shows deviation to the left in one milestone associated with a risk factor: Refer them immediately to the higher-level health establishment and ensure that the referral is effective; also verify the counter-referral to continue with follow-up. If the parents do not bring the child to the referral establishment indicated, the nursing professional must organize actions with the multidisciplinary team and other institutions responsible for child protection in order to execute the referral.
  d. Developmental deficit: Explain and demonstrate measures and guidelines for stimulation and make an appointment in two weeks for a check-up visit; if the child improves, continue with the check-up visits according to the age-based calendar; if they do not improve, escalate to a higher level for evaluation by a specialist. If the parents do not bring the child to the referral establishment indicated, the nursing professional must organize actions with

the multidisciplinary team and other institutions responsible for child protection in order to execute the referral.

- The referral will be made to the establishment that has the capacity to diagnose and treat developmental disorders and current rules and regulations will be followed. Additionally, a copy of the development evaluation file will be sent.
- The counter-referral will be made according to the terms of current regulation. Additionally, a copy of the development evaluation file will be sent, indicating the procedure to follow.
- The nursing professional is responsible for coordinating the child's referral, counter-referral, and follow-up.

6.3.5.3. Stimulation of development and comprehensive care according to the child's age

- Development stimulation strengthens the emotional bond between parents or caregivers and their children, thereby supporting the child's safety, self-esteem, and trust.
- Development stimulation includes specific activities to improve the child's skills and abilities in specific developmental areas, such as: language, motor, social, emotional, and cognitive.
- Development stimulation is carried out in the consultation office individually or collectively through sessions with children grouped by age.
- The guidelines for developmental stimulation and comprehensive care of the child must be in accordance with the age and developmental level of the child, considering the family's socioeconomic and cultural context.
- The material used for stimulation can be prepared with the joint participation of the health personnel, parents, and community, considering local and regional cultural patterns.
- During care, the health provider addresses the following with the parents or persons responsible for the child's care.
  - Psychosocial stimulation determines the child's behavior, i.e., how they express their emotions according to their age and how they relate with others, and for this reason, the child needs to feel appreciated, loved, and protected at all times.
  - Participation of both parents in the child's development process is of vital importance, and so it is necessary to encourage constant interaction between them.
  - All times are good for stimulation. However, the child's parents or caregivers need to dedicate the necessary time and attention and take due care.
  - The child's interaction within a group of friends also provides a space and opportunity for stimulation, and so it should be encouraged from within the family.

- The use of exclusive breastfeeding, in addition to providing the nutrients necessary for the child's growth, strengthens the mother/child emotional bond, providing the child with a sense of security and trust.
- Massaging and petting are ways of showing affection, providing security and helping the child to develop emotionally. As such, these practices should be encouraged among parents.
- Play is another effective way of stimulating the child, and so it is necessary to encourage spaces for children to play with their parents or caregivers and to encourage creation of toys using local resources.
- Music and singing are also strategies to stimulate language development.

6.4. Educational information and communication family interventions to support child rearing (see Appendices 10 and 11)

6.4.1. Identification of factors impacting health, nutrition, growth, development, and child rearing.

- During the process of growth and development monitoring, it is essential to identify, record, and analyze the impacting factors (protective and risk factors) for health, nutrition, growth, development, and child rearing. This process will be performed together by the provider and the parents or adult responsible for the child's care.
- Identification of these factors is key in order for counseling to be effective and to appropriately guide the agreements negotiated with parents. Timely identification will allow the protective factors to be encouraged and guaranteed, while also allowing detection, prevention, and control of any risk factors that may come to threaten the health, nutrition, and development of the child. Likewise, it will allow for timely referral.

Evaluation of consumption of foods and safe water

- Evaluation of consumption of foods and safe water is performed at each check-up or contact the child has with health services, whether those services are provided at a fixed establishment (health establishments, other community scenarios) or through mobile services (brigades or mobile teams). The objective is to inquire into the characteristics of the child's diet and identify risk factors, using the system included in the clinical history, the results obtained serve as basis for counseling and scheduling of at-home visits and demonstration sessions.

Identification of protective factors.

- Protective factors are those practices which are favorable to the health and growth and development process of the child, such as:
  - Exclusive breastfeeding during the first six months, continued through two years of age.

- Appropriate supplemental diet beginning at 6 months of age.
- Providing sufficient quantities of micronutrients, particularly iron and Vitamin A.
- Timely and complete adherence to the vaccination schedule.
- Promoting proper hand washing, personal hygiene, and hair washing.
- Protecting children with adequate clean clothing according to the climate.
- Continuing feeding in lesser amounts and giving children liquids when they are sick.
- Recognizing warning signs of prevalent childhood diseases for timely transfer to the health establishment.
- Affection between parents and children and other family members.

• In the life of a child, the place where most protective factors are present is in the family, which constitutes the core and foundation for the comprehensive development of the child.

Identification of risk factors

• Risk factors are those causal or associated factors that significantly affect a child's health and their growth and development process, such as:

Socioeconomic factors:

- Poverty.
- Illiteracy or low education level of parents.
- Lacking a Unique Identity Code or a National Identification Document (DNI).
- Lacking access to health insurance (SIS, EsSalud, or others).
- Deficient environmental sanitation.
- Improper housing conditions.
- Age of the mother (adolescent)
- Lack of affection.
- Orphanhood or social abandonment.
- Dysfunctional family.
- Improper feeding practices.

Prenatal Factors

- Consanguinity.
- Family history of chromosomal alterations.
- Maternal diseases and infections (syphilis, toxoplasmosis, HIV, cytomegalovirus, rubeola).
- Age of the mother – (pregnancy during adolescence).
- Unwanted pregnancy.
- Delayed intrauterine growth.
- X-ray exposure.
- Exposure to toxins (alcohol, drugs, lead, medications, etc.).
- Metabolic conditions: Diabetes, Hypothyroidism.

- Problems with fetal/placental function.
- Genetic diseases and congenital defects.
- Acute fetal suffering.
- Preeclampsia, Eclampsia.
- Neurological structural alterations detected by ultrasound.

Natal Factors

- Perinatal Asphyxia.
- Prematurity.
- Low birth weight.
- Obstetric trauma.
- Delayed intrauterine growth.
- APGAR < 3 at 1 min or < 7 at 5 min.
- Birth attended by unqualified personnel.

Postnatal Factors

- Hyperbilirubinemia.
- Deprivation of affection and care.
- Child abuse, family violence.
- Metabolic disorders: hypoglycemia, hypothyroidism, phenylketonuria, cystic fibrosis.
- Sepsis and infections of the Central Nervous System: Meningitis, encephalitis.
- Traumatic brain injury.
- Severe malnutrition.
- Hip dysplasia and other congenital malformations.
- Convulsive syndrome.

6.4.2. Comprehensive Counseling

- Counseling is an educational and communicational process to be carried out in a participatory manner between the healthcare provider and the parents or persons responsible for the child's care in order to help them identify the factors that affect the child's health, nutrition, and development, analyze the problems identified in the evaluation, and identify actions and practices that allow for the proper growth and development of the child according to their reality, reinforcing the appropriate practices and correcting those that present risks.
- Counseling focuses on improving childcare practices, as well as on the use of resources available to the family, allowing establishment of a negotiated agreement regarding the identified practices and actions, recording them in the clinical history.
- Counseling is performed at each check-up or contact the child has with health services, regardless of whether this is through a fixed site (health establishment, other community scenarios) or mobile services (brigades or mobile teams)

according to the needs identified (feeding according to age, early stimulation, feeding during sickness, personal hygiene/hand washing, prevention of complications from prevalent diseases, encouragement of emotional bonds, prevention of accidents, mother's care and diet, etc.).

6.4.3. Nutritional Counseling

- The objective of nutritional counseling is to ensure proper nutritional status or to achieve recovery of the growth trend. The purpose is to guide and help parents or adults responsible for the child's care to make decisions, based on the growth status (whether normal or abnormal [risk or malnutrition]), to improve feeding and nutrition practices.
- Nutritional counseling is a priority in situations of risk and in disease processes.
- During nutritional counseling, it is important to encourage proper feeding practices and quality in diet (animal-source foods, foods rich in iron), and a relaxed and affectionate environment.
- Nutritional counseling is performed at each check-up or contact the child has with health services, whether those services are provided at a fixed establishment (health establishments, other community scenarios) or through mobile services (brigades or mobile teams).
- Counseling can be reinforced with group activities such as educational and demonstration sessions.

6.4.3.1 Breastfeeding counseling

This is performed by members of the health team that have received the respective training. It can be an individual or group activity.

VII. COMPONENTS

7.1. Management Component

7.1.1. Planning, scheduling, and allocation of resources

- Monitoring of growth and development is an activity included in the institution's annual operational plan.
- The operational plans at the various levels will include activities to promote and organize the demand for growth and development services.
- Monitoring of growth and development is an intervention included in the functional budgetary structure as part of the Nutritional Budgetary Joint Strategic Program; its target is *"Children with complete CRED according to age",* and its unit of measurement is *"Monitored Child".*
- The target population for monitoring of growth and development is children from 0 to 4 years 11 months and 29 days of age, with priority on children under 36 months.

- The estimate population to be services each year for each sub-sector is determined considering the responsibility in each jurisdiction.
- The programming criteria defined at a national level (Appendix 12) are used to determine the physical goal of children controlled by age group in the various health jurisdictions.
- Assignment of human resources to conduct monitoring of growth and development is determined by the physical goal, the average time used per check-up (45 minutes), characteristics of demand, dispersion of the population, installed capacity (number of offices), category and capacity for resolution of the health establishment, service modality (individual or group), and the scenario in which it occurs.

7.1.2. Supervision, Monitoring, and Evaluation

- Monitoring of growth as an activity is monitored continuously in order to guide and reorient processes, primarily those considered critical at the health establishments, and this monitoring is the responsibility of the nursing professional at the various levels locally (Network and Micro-network), regionally (DIRESA, GERESA, or the equivalent at regional level), and nationally (DAIS - Child's Life Stage) according to their authority.
- Monitoring allows description and determination of the achievement and progress made toward the physical goals, as well as the processes that ensure the availability of inputs, budgetary execution, and others as appropriate.
- Supervision is aimed at improving the performance of personnel and the quality of monitoring of growth and development at the health establishments, as such, they are scheduled as frequently as is appropriate to the level; this is the responsibility of the nursing professional with the support of the management staff at the various levels locally (Network and Micro-network), regionally (DIRESA, GERESA, or the equivalent at regional level), and nationally (DIAS - Child's Life Stage), according to their authority.
- Supervision involves development of immediate actions such as technical assistance, which is defined as a teaching/learning process that occurs interacting with the supervised staff, analyzing the critical elements identified in order to implement corrective measures.
- The results of the supervision allow the planning of skill development processes under another methodology (workshops, internships, etc.) over the medium and long term.
- The purpose of the evaluation is to compare the objectives and goals with the results obtained.
- Evaluation according to the established indicators will be conducted on a monthly, biannually, and annually basis by levels (national, regional, and local).
- Evaluation is performed both of physical goals and of budgetary targets at each level.
- The information used for the evaluation comes from the current official information system.

- The evaluation indicators are:

  Structure indicators
  - Proportion of health establishments with appropriate equipment to conduct monitoring of growth and development.
  - Proportion of health establishments with trained nursing professionals to conduct monitoring of growth and development.

  Process indicators
  - Proportion of children with completed monitoring of growth and development according to their age.
  - Proportion of children under 24 months receiving iron supplement.

  Impact indicators
  - Proportion of children maintaining an appropriate growth curve.
  - Prevalence of chronic child malnutrition.
  - Prevalence of childhood anemia.

7.1.3. Strengthening of skills of health personnel

- The personnel performing monitoring of growth and development requires constant training and updating.
- The minimum training that must be received by professional and technical staff is 40 academic hours per year.
- The minimum training contents are: Growth and development of the child, counseling, early stimulation, anthropometry, maternal and child nutrition, comprehensive healthcare, detection and handling of violence, information and management system.

7.1.4. Information System (Appendix 13).

- The gathering, processing, and analysis of the information on growth and development monitoring activities is carried out according to current regulation.

7.1.5. Investigation

- The lines of operative investigation are primarily aimed at:
  - Determining the efficacy of monitoring of growth and development in the improvement of children's health, nutrition, and quality of life.
  - Impact of appropriate feeding and nutrition practices for children under 3 years (breastfeeding and supplemental feeding) on the decrease of chronic malnutrition and child morbimortality.
  - Impact of early stimulation on child development.
  - Impact of monitoring of growth and development on the decrease in domestic violence.
  - Impact of counseling on the improvement of child care practices in parents.
  - Development of technology to improve interventions relating to growth and development monitoring at a local level.

7.2. Organization Component

7.2.1. Organization of Care

- Monitoring of growth and development of children under 5 years of age is performed at all health establishments according to their category at the comprehensive child healthcare offices and is guided by a flowchart established according to local reality. This process must give priority to higher risks, decrease wait times, reduce lost opportunities, optimize the use of available resources, etc.

7.2.2. Instruments for record-keeping and monitoring

- The instruments for record-keeping are the following:
  - Standardized Clinical History which includes: (Appendix 1)
    - ✓ Care plan.
    - ✓ Information on family and medical background.
    - ✓ Evaluation of consumption of foods.
    - ✓ Consultation form.
    - ✓ Weight/age, height/age, and head circumference growth curves.
    - ✓ Instrument for assessment of development according to age.
    - ✓ Family Violence and Child Abuse Screening Card.
  - Comprehensive care card for children under five.
  - Comprehensive daily care log pursuant to the current system.
  - Comprehensive child care tracking log pursuant to the current system.
  - Care form according to insurance system guaranteeing payment (SIS or other, as appropriate).

7.2.3. Environment and Equipment

- To perform monitoring of growth and development, there needs to be one or more environments duly conditioned and equipped according to the category.
- The infrastructure, equipment, and furnishings of the comprehensive child healthcare office will be in accordance with current regulations. (Appendix 13).
- The equipment used to take anthropometric measurements must adhere to the established technical and quality control specifications. (Appendix 13).

7.2.4. Health Team

To perform growth and development monitoring each health establishment must have, pursuant to its category, a nurse or trained health technician. Likewise, each establishment must have a multidisciplinary team to conduct comprehensive management of growth and development problems.

7.2.5 Referral and Counter-referral

- The referral will be made to the establishment from the network or micronetwork that has the capacity to diagnose and/or treat growth and development problems, as well as procedures for diagnostic assistance.

- All children with a physical disorder or congenital malformation must be immediately referred to the health establishment of the highest complexity for care.
- The procedure to follow for referral and counter-referral will adhere to current regulations. (All children must have an annual checkup by a physician.)

7.3. Provision Component

- Monitoring of growth and development of children under 5 years of age is performed at all health establishments according to their category.
- Growth and development monitoring can be performed in the community or other settings, provided that the environment meets the required physical conditions and minimum equipment.
- Monitoring of growth and development in the community is prioritized in areas that are remote from health establishments.
- Growth and development monitoring is the responsibility of the nurse at all care levels.
- At primary care establishments that do not have a nurse, it can be performed by duly trained technical staff.
- Growth and development monitoring requires a minimum of 45 minutes for each check-up which is adjusted based on the needs and condition of the user.
- The processes necessary to perform growth and development monitoring are: recruitment, admission, care, and follow-up.

Recruitment

When the birth is attended institutionally:

The establishment that attended to the birth of the child notifies the corresponding service or health establishment in order to schedule the first home visit within 48 hours of discharge and the first check-up at seven days.

When the birth is attended outside of an institution:

- The health personnel conducts a home visit immediately upon becoming aware of the birth (this activity is performed in coordination with the community agent, where appropriate) and schedules the first check-up at seven days, which is mutually agreed with the parents.
- Children that were not born in the area or that did not have follow-up after birth will be recruited through referral made by community agents during visits to the community or at home visits.
- Children going to a health establishment for the first time for any reason (due to illness, accompanying someone else, etc.) are recruited to begin their monitoring visits.
- At the health establishments, all health personnel offer clear and detailed information on growth and development monitoring highlighting the potential benefits for the health of the child as well as for the family and community.
- The staff responsible for comprehensive care and growth and development monitoring designs and implements working strategies with families, the community, and other sectors to improve access and coverage.

- With the help of community agents and local authorities, a list of children from the community is prepared and regularly updated (children born in the community and those that come to live there).
- Recruitment is also carried out in other spaces where children gather (pre-schools, daycare centers, primary education institutions, etc.).

Admission

The admission process for monitoring of growth and development of children at a health establishment includes: reception, determination of their insurance status, gathering of information for identification and record-keeping, as well as the provision of the necessary information to guide parents in the care process, not only at the establishment but in the health services network.

Care

- Growth and development monitoring is part of the package of comprehensive healthcare for children under 5 years of age.
- Growth and development monitoring is performed according to the individual comprehensive healthcare plan and the current system.

Follow-up

- For follow-up with children, a system of appointments will be used, such appointments to be determined at each check-up and agreed to mutually with the parents or adults responsible for the child's care.
- The appointments are established considering the minimum established intervals, date of birth of the child, parents' scheduling availability, availability of establishment resources, etc.
- The frequency of appointments increases when risk or problems are identified in the child.
- The instrument that guides follow-up is the individualized comprehensive care plan.
- The home visit is the ideal strategy to conduct follow-up and consolidate habits in the care of the child, as it allows the following:
  - Follow up with the family to reinforce key habits.
  - Evaluate progress and adjust negotiated agreements.
- Home visits will be performed with priority in the following cases:
  - Children that do not appear for scheduled appointments.
  - Children presenting with inadequate growth.
  - Children with a development risk.
  - Children with a developmental disorder.
  - Children undergoing iron supplementation.
  - Children with a social risk.
  - Children that are at risk for or victims of violence or abuse.

- Follow-up is ensured for children through the community monitoring system.
- The health service must encourage the community to participate in follow-up defining the most effective mechanisms for children and infants based on their reality.

7.3.1. Care Modalities

Individual care: Process whereby the health service provider interacts with a child under 5 years of age and with the parents or caregivers, following the procedure described in this standard.

Group are (Appendix 15): Process whereby the health service provider interacts with a group of children of the same age and their parents[1].

- In the group care modality, there are two distinct phases: the first is the individual evaluation phase, following the guidelines described in this standard, followed by the group work phase, aimed at developing an educational and group stimulation process, encouraging active participation of parents or the adults responsible for the child's care.
- Group care is a modality recommended for health establishments that receive high demand (concentrated and semi-concentrated populations).
- The groups include a maximum of 10 children of the same age, accompanied by their parents.
- The recommended procedure is as follows:
  - Conduct the child's growth and development evaluation individually, following the guidelines described above and explaining the results of the evaluation to the mothers.
  - The group work is carried out after the individual evaluation is complete.
  - Bring together the group of parents and children in an appropriate environment and enter into dialogue with parents on the problems identified in the evaluation.
  - Analyze in a participative manner the main causes of the problems identified and suggest alternatives to improve the situation together with parents.
  - Develop educational sessions on nutrition, health, and early stimulation practices, considering the age of the children from the group and the coincidence of weak points identified during the individual evaluation.
- During group work, the following topics are reviewed:
  - Knowledge and practices for nutrition according to the age of the children (exclusive breastfeeding, supplemental feeding, etc.).
  - Activities that stimulate motor development.
  - Activities that stimulate language learning.
  - Personal hygiene, child rearing, and daily care practices, prevention of violent practices that harm the child's development and self-esteem.
- Develop early stimulation sessions on identified topics.
- Jointly establish individual agreements on improvements in child care practices.
- Give reminder of the next appointment, which will be recorded individually on the child's card.

Considerations for Group Work

- To ensure work with similar age groups, an appointment scheduling system is established considering the age of the children. This allows parents to compare their child's development to others from the community and exchange experiences and knowledge.
- To perform the group work, a physical space is needed with sufficient size, lighting, ventilation, and equipment (cushions, chairs or benches, stimulation battery, audiovisual equipment, etc.).
- The foundation of the group work is the parents' willingness to learn and work each day with their child, and the aim is to develop an educational and group stimulation process based on exchanging knowledge and practices relating to the child's comprehensive care, early stimulation and encouraging affection.
- The group work allows for exchange and dissemination of successful experiences in child rearing and care. Parents can observe the benefits of early stimulation and diligent care as key elements for the harmonious development of the child during early years of life. It also addresses myths and believes among parents without prejudice, as it establishes a mechanism for analysis and reflection among peers.
- This methodology facilitates the learning process, as it establishes a mechanism for bidirectional feedback between parents and health staff. It encourages and motivates parents to perform activities with their children.

7.4. Financing Component

- Activities for monitoring of growth and development in children under 5 years of age at public establishments will be funded by the financing sources established according to legal rules in effect for the various public entities providing health services. Private health establishments implement growth and development monitoring activities for children under 5 years of age according to the funding model that supports them.
- Public insurance models will include in their benefits the activities contained in this technical health standard.
- The standard cost structure is the instrument which will support allocation of financial resources.

VIII. RESPONSIBILITIES

- National Level:

  The Ministry of Health, through the Department of Human Health, is responsible for the dissemination of this Technical Health Standard, as well as for supervision and technical assistance at a regional level for application of the standard. The institutional management levels of the health establishments of the sub-

sectors (EsSalud, Armed Forces, National Police of Peru, Regional Governments, Local Governments, and private entities) are responsible at a national level for dissemination of this Technical Health Standard, as well as for supervision of its application, in the various services involved in care for children under five years of age, within the scope of their authority.

- Regional Level:
  The DISAs and DIRESAs or equivalent at the regional level are responsible for dissemination of the Technical Health Standard within their respective jurisdictions, as well as for supervision of its implementation at public and private health establishments. They are also responsible for reporting at a national level the information relating to the care provided within the framework of this Technical Health Standard.

- Local Level:
  The management of each health establishment, public or private, according to the level of complexity, is responsible for implementation of and adherence to this Technical Health Standard.

IX. FINAL PROVISIONS

- This Technical Health Standard must be reviewed and updated when necessary, every two years by the Department of Human Health of the Ministry of Health.

X. Appendices
XI. BIBLIOGRAPHY