



Early Childhood Counts: Programming Resources for Early Childhood Care and Development

The Care Initiative: Assessment, Analysis and Action to Improve Care for Nutrition

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“Start with what they know,
Build with what they have.”
Lao Tsu 700 BC

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Executive Summary

Social responsibility to fulfill each child’s enjoyment to the highest attainable standard of health, explicitly recognised in the Convention on the Rights of the Child, includes a satisfactory standard of nutrition. Nutritional outcomes themselves arise from immediate determinants of dietary intake and freedom from illness. Yet despite investments in food security and in health services and healthier environments, malnutrition rates remain high in many parts of the world. Food and health are necessary but not sufficient conditions for good nutrition outcomes, as represented in the UNICEF Conceptual Framework for nutrition. The third underlying determinant is care.

Care for nutrition refers to the practices at household level of those who give care to children, translating the available food and health care resources into a child’s survival, growth and development. Care from birth to the age of three, the focus of this document, is inseparable from the well-being of women, globally the usual caregivers for infants and young children. Relevant sections of the Convention on the Elimination of all forms of Discrimination Against Women are identified.

The household practices, and how they are carried out -- with affection and responsiveness, for example -- are critical to family nutrition outcomes. Practices in turn arise from conditions which create, for adults and children alike, an environment of resources and knowledge which provides all family members with what they need.

The six headings below represent aspects of the care necessary for good growth and development of children under the age of three, synergistic with household food security and health services and a healthy environment. For each practice, the text and tables identify various elements, with encouragement to include locally significant indicators:

- ◆ Care for women
- ◆ Breastfeeding and feeding practices
- ◆ Psycho-social care
- ◆ Food preparation
- ◆ Hygiene practices
- ◆ Home health practices

Resources for the provision of care may be human, economic, or organisational, ranging from the beliefs, knowledge and health of the caregivers, and their control of money, time, and decisions, to the degree of community support such as sharing of workloads and supervision of children. At the national level, resources for care are influenced by expenditure priorities, poverty levels, landlessness and other limitations on the distribution of available resources. Political, cultural, social and economic structures constitute basic determinants of the use of resources in support of families and caregivers for children.

Through this document, the Care Initiative, community members, UNICEF programme staff and government counterparts are provided with means of assessing existing care practices, and analysing the resources and structures which determine them. The ultimate aim is to facilitate, with full participation of women caregivers, the planning of action for improved care for nutrition.

1. The Role of Care in UNICEF's Nutrition Strategy

1.1. Purpose of the Care Initiative: Care for Nutrition

Despite investments in nutrition education, health and food security, malnutrition rates remain high in many areas, and rates of improvement are slow. One reason may be inadequate care practices in the household, and inadequate resources or support for adequate care at community and governmental levels.

Care practices and resources for care may not receive much attention by those concerned with nutrition; they may be included in nutrition assessments or plans only superficially. These practices and resources tend to be undervalued or undercounted, perhaps because they are daily, time-consuming and repetitive activities, primarily performed by women. Yet these practices can determine the course of a child's life. We are unique among species in having an extended period during which children are dependent on caregivers' practices, and our ability to provide care is one of our main evolutionary advantages. We must be vigilant to be sure that good caring practices are protected and supported as families and societies change and adapt to new and sometimes difficult circumstances. Inadequate care for young children can compromise their growth and development.

The goal of the Care Initiative is to provide decision-makers with knowledge and skills to assess, analyze, and take action to support or change care practices to improve nutrition. This document is intended to assist UNICEF field staff in collaborating with national counterparts to assess nutrition-related care practices for women and children and the human, economic, and organizational resources for care. The focus is women's nutrition and child nutrition from conception through around age three, the most important period for child growth. Although the consequences of care go far beyond nutrition, the Care Initiative does not attempt to address care issues related to child mortality, neglect or abandonment; it focuses on the care practices which directly and indirectly affect nutrition.

Caring practices and resources vary tremendously by culture, and even by groups within cultures. These differences must be recognized and supported, and the Care Initiative must be adapted to each setting. And we are all human, much more similar than we are different. Children's basic needs for food, health care, protection, shelter, and love are the same in all cultures. Differences may be seen in how each culture attempts to meet these needs. Widespread changes in families due to urbanization, women's increased economic role, and population increase require adaptations in care practices. Understanding caring practices and resources for care in general should help local people identify the practices and resources which are important for their cultural and ecological setting.

This paper provides a structure and a perspective, not a "prescription." It is designed to help UNICEF staff and counterparts:

- ◆ develop a concept of care as outlined in the UNICEF Nutrition Strategy;
- ◆ encourage inter-sectoral discussion and collaboration;
- ◆ assess care practices and care resources;
- ◆ analyze the components of care in nutrition;
- ◆ make action recommendations to improve nutrition which include changing care practices and enhancing care resources;
- ◆ develop monitoring systems for action regarding care.

This paper can be used in conjunction with strategies for improved group processes, community mobilization, and techniques for influencing policy-makers (e.g. Pelletier et al., 1994). Information is most useful if it is gathered to respond to specific questions of decision-makers; it is most useful in the service of the decision-making process.

1.2. The Care Initiative within UNICEF's Nutrition Strategy

The UNICEF Nutrition Strategy is to empower families, communities and governments to improve the nutrition of women and children on the basis of adequate and sound analysis. The two most important elements in this strategy are a process of assessment, analysis and action (the "Triple-A approach") and a conceptual framework for the analysis of the determinants of malnutrition in a specific context. The immediate determinants of good nutrition and survival are adequate dietary intake and health. These are determined by underlying conditions that affect household food security, health services, and the care of women and children. Food, health, and care are in turn determined by the basic determinants of political, ideological, historical and economic structures.

Food, health, and care are all necessary, but not sufficient conditions for good nutrition outcomes. Adequate care alone will not result in optimal health and nutrition for women and children. All three elements must be satisfactory for good nutrition. Even when poverty causes food insecurity and limited health care, enhanced caregiving can optimize the use of existing resources to promote good health and nutrition in women and children. Breastfeeding is an example of a single practice which provides food, health and care simultaneously.

Whereas the underlying factors of household food security and health care have been described in great detail, the components of care of women and children have been less well defined. This paper summarizes the most recent consensus on care in order to help programmes develop strategies to improve women and children's nutrition using the Triple-A approach. Because care problems, like other nutritional problems, will not be resolved through nutrition programs alone, an inter-sectoral approach is needed. Care practices and resources can be improved through actions of different sectors, including health, early child development, agriculture, community development, women's income generation, water and sanitation, and the environment.

The Triple A-Approach of Assessment, Analysis and Action is a means of identifying what caring behaviors exist within a community (assessment), how caring can most effectively be enhanced (analysis), and what can be done to support good caring practices or change less satisfactory practices (action). The Triple-A approach needs to be applied at various levels - at the household level, where families provide the basic care for nutrition, at the community level, where many resources for care are located, and at the national and international levels, where policies regarding the status of women, employment for women and men, health care and consumer protection can have significant impacts on caring within the household (UNICEF, 1990a).

1.3. Definition of Care Practices and Care Resources

The six kinds of care practices listed here include the major activities performed on a day to day basis by caregivers which affect the nutrition of women and children. These practices are what people do; resources for care help people perform these activities. Care practices are often referred to as care behaviours.

Care for nutrition refers to the practices of the caregivers in the household which translate food security and health care resources into a child's growth and development. These practices include 1) care for women, including care for pregnant and lactating women, 2) breastfeeding and complementary feeding, 3) psycho-social care, 4) food preparation and food hygiene, 5) hygiene practices, and 6) home health practices. Not only the practices themselves, but also the ways they are performed - with affection and with responsiveness to children - are critical to children's growth and development. These practices are shown in the adaptation of the UNICEF conceptual framework in Figure 2, UNICEF's Conceptual Framework: Care for Nutrition.

Caregivers need resources in order to provide this care. Human, economic, and organizational resources contribute to care at family, community, national and international levels. Human resources at the family level include the caregivers' knowledge, beliefs and education, and enough physical health and mental health and confidence to put the knowledge into practice. Economic resources include caregivers' control of resources, and time in order to provide care. Organizational resources include alternate caregivers and community care arrangements, and emotional support from family members and community networks (Jonsson, 1995).

In this paper we refer to practices of "caregivers" rather than "mothers". In almost all societies, mothers are primarily responsible for care. However, mothers are not the only family members responsible; fathers, grandparents, adult family members, siblings, community members or hired

help provide care for women and children, and may even control resources that affect the mother's care.

Raising a child well depends on the efforts and resources of the family, the community, and the nation. The responsibility of the society is to fulfill each child's right to the enjoyment of the highest attainable standard of health, according to the Convention on the Rights of the Child. A family's ability to provide care depends fundamentally on the political structures, the cultural context, social structures and context, and on the economic structures of the society. Major changes in political and economic structures, conflicts and emergencies pose a special challenge to the development and sustainability of caring environments at all levels.

1.4 International Rights Conventions and Care for Nutrition

To value the improvement of child growth and development principally from the perspective of the eventual productivity of the person would be inappropriate. Such an approach ignores the fundamental principle that every child in the world has the inherent right to reach his or her full potential in all spheres of life, and that society has a corresponding duty to ensure an environment that is conducive to the enjoyment of that right.

The right of every child to the highest attainable standard of health is explicitly recognized in the Convention on the Rights of the Child (CRC), the first nearly universally ratified human rights treaty in history. This means that the 190 States that as of 4 April 1997 had ratified the CRC are under an obligation to respect, protect and fulfil this right. They must also report regularly to the international community on efforts made to implement their commitments under the Convention. Among the appropriate measures States are obliged to take under Article 24 of the Convention are those:

- ◆ to diminish infant and child mortality;
- ◆ to ensure the provision of necessary medical assistance and health care to all children with emphasis on the development of primary health care;
- ◆ to combat disease and malnutrition;
- ◆ to ensure appropriate prenatal and postnatal health care for mothers;
- ◆ to ensure that all segments of society, in particular parents and children, are informed, have access to education and are supported in the use of basic knowledge of child health and nutrition, the advantages of breastfeeding, hygiene and environmental sanitation and the prevention of accidents;
- ◆ to develop preventive health care, guidance for parents and family planning education and services.

It is only through the fostering of appropriate caring practices at the national, community and household levels that these objectives will be reached, and the child's right to the highest attainable standard of health realized. Governments are therefore responsible for ensuring that such caring practices are made possible.

Article 27 of the CRC further recognizes the right of every child to a standard of living adequate for his or her physical, mental, spiritual, moral and social development. That standard of living cannot be defined only in terms of access to sufficient resources to ensure adequate food, clothing and shelter. Food, clothing and shelter will not in themselves guarantee the child's overall development. Adequate standard of living must be seen in terms of sufficient resources and knowledge to create a caring and nurturing environment in which the child can grow and reach his or her full potential. Article 27 recognizes that it is primarily the responsibility of the parents or others responsible for the child to secure the conditions of living necessary for proper development. However, governments are called upon, within their means, to assist parents and others responsible for the child to implement this right. In cases of need the government should provide material assistance and support programmes, particularly with regard to nutrition, clothing and housing. This assistance should also be seen within the context of a duty on governments to ensure an environment in which the child can be cared for appropriately. This includes a duty to render appropriate assistance to parents and legal guardians in rearing their children and to ensure the development of institutions, facilities and services for the care of children (Article 18 CRC).

As of 31 January 1997 155 States are Parties to the Convention on the Elimination of all forms of Discrimination against Women (CEDAW). This Convention places those States under an obligation to adopt the measures required to bring an end to such discrimination. Many of the forms of discrimination covered by CEDAW contribute to the violation of the child's right to adequate care, and their elimination is thus of direct relevance to this initiative. But above all, these forms of discrimination are unacceptable violations of women's basic rights.

Mention has been made of the fact that care practices and resources tend to be undervalued to the extent that they are seen as daily, monotonous, tasks, often performed by women, whose roles and status in society are also often undervalued. Women generally have the principal responsibility for caring for infants and young children, whether as mothers, grandmothers, daughters, aunts, or child caregivers. Often their inability to care adequately for the child will be a direct result of the discrimination they suffer within their societies. This can take the form of inadequate access to basic education and health care services and discrimination in areas of economic and social life and employment. The lack of knowledge within the society as a whole of the importance of maternity and child-rearing as a social function, recognizing the joint responsibility of men and women in the upbringing and development of their children contributes to this discrimination. The denial of rights to maternity leave with pay or comparable social benefits also has an impact on a woman's ability to care for her child. These forms of discrimination are all covered by CEDAW.

The binding obligations assumed by States Parties to these two Conventions, and more specifically the measures that governments can be expected to take in improving nutrition through the enhancement of care resources, must be kept in mind when using the Care Initiative.

This paper outlines practical examples and domains of appropriate actions to be taken under CRC and CEDAW. These should be communicated to government counterparts and offered as practical aids to the implementation of their obligations. Figure 3 provides examples of provisions significant to caregiver resources and care practices. [Figure 3 unavailable]

2. Care Practices

2.1 Care for Women: During Pregnancy and Lactation

CRC - Art. 24, 2 (d): Access to appropriate pre-natal and post-natal care for mothers.

CEDAW - Art. 5 (b): Family education should include a proper understanding of maternity as a social function, recognizing the common responsibility of women and men in the upbringing and development of their children.

CEDAW - Art. 11, 2 (b): Right to maternity leave with pay or comparable social benefits.

CEDAW - Art 12, 2: Access to health care services, including those related to family planning; provision of appropriate services in connection with pregnancy, confinement and the post-natal period, granting free services where necessary, as well as adequate nutrition during pregnancy and lactation.

2.1 Care for Women: Reproductive Health

CEDAW - Art. 10 (h) Access to educational information and advice on family planning.

2.1 Care for Women: Workload and Time

CEDAW - Art 11, 1 Equal rights of women to employment opportunities, remuneration, social security and protection of health and safety.

2.1 Care for Women: Autonomy; Economic Resources

CEDAW - Art. 13: Elimination of discrimination in areas of economic and social life, including right to bank loans, mortgages and other forms of financial credit.

CEDAW - Art. 14: Right of women in rural areas to participate in and benefit from rural development, including social security programmes

CEDAW - Art. 15: Equality with men before the law, including equal rights to conclude contracts and administer property

2.1 Care for Women: Autonomy and/or Respect in the Family

CEDAW - Art. 16 Elimination of discrimination against women in all matters relating to marriage and family relations, ensuring same rights for both spouses in respect of the ownership

and administration of property

2.1 Care for Women: Access to Education

CRC - Art. 24, 2 (e) Right to education and support in use of basic knowledge of child health and nutrition, the advantages of breastfeeding, hygiene and environmental sanitation.

CEDAW - Art. 10 Equal rights with men in the field of education.

2.2 Breastfeeding and Feeding; 2.5 Hygiene Practices; 2.6 Home Health Practices

CRC - Art. 24, 2 (e): Right to education and support in use of basic knowledge of child health and nutrition, the advantages of breastfeeding, hygiene and environmental sanitation.

3.1 Human, Economic, and Organizational Resources

CRC - Art. 18: States shall render appropriate assistance to parents and guardians in their child-rearing responsibilities and shall ensure the development of institutions, facilities and services for the care of children.

3.1 Human Resources: Fathers

CEDAW - Art. 5 (b): Family education should include a proper understanding of maternity as a social function, recognizing the common responsibility of women and men in the upbringing and development of their children.

3.1.2 Economic resources

CEDAW - Art 11, 1: Equal rights of women to employment opportunities, remuneration, social security and protection of health and safety.

CRC - Art. 27, 3: In assuring the child's right to an adequate standard of living States shall, within their means, provide material assistance and support programmes in cases of need, particularly with regard to nutrition, clothing and housing.

3.1.3 Organizational resources

CEDAW - Art. 11, 2 (c): Encouragement of the provision of necessary supporting social services to enable parents to combine family obligations with work responsibilities.

2. Care Practices

What is a Healthy Child? Parents in many societies define “healthy” children as happy, bright, and active as well as free from disease; they do not separately evaluate motor development, cognitive development, and psycho-social adjustment apart from “health”. Similarly, parents

may not be aware of all of the different activities which they are already doing to support their children's development; they may think that they are just "watching children grow". This Initiative describes many care practices caregivers are already doing. By naming and describing these existing valuable practices, service providers, policy makers and the parents themselves can recognize their efforts. This paper describes not only what these practices are, but also how important they are for good nutrition for women and children.

How Children's Characteristics Affect Care. Differences between children can have a major effect on their nutritional status. Some of these differences are due to the way children behave, such as their temperament or verbal abilities. Others are due to the perceptions parents have of children as a function of their social value. A third difference is due to their developmental period or their age. The way these child characteristics affect care will be discussed for most of the care practices.

Social value of children can affect care. When males and females are not valued equally, care may be different for each gender. A child with physical or emotional disabilities may be at greater risk of undernutrition than a child without disabilities. A child's parentage, such as being the child of a single or step parent, or a disapproved relationship, may influence care practices. Birth order can also have a significant effect on care practices; first borns to young women may be raised by a maternal grandmother, and later borns, particularly if the non-preferred gender, may receive much less care. Even physical attractiveness, or similarity to a particular parent may affect care. A weak or sickly infant may be perceived as having little "will to live", and therefore may not be given as much attention. When a family is under economic or social stress, these vulnerable children will be most affected.

Care practices also differ very much according to the age of the child, or the child's developmental period. The prenatal period and these first three years of life (0-2) are the most important for good growth and development. Mortality is highest during the first year of life. In the first six months of life, malnutrition tends to be less common if the mother is exclusively breastfeeding. During this period, the most important care practices are centered on the lactating woman and her breastfeeding. Investments made in children's nutrition during this time can result in a significant decrease in rates of malnutrition both for the children themselves, and for the next generation.

When infants begin consuming foods in addition to breastmilk, they are at risk of infection and malnutrition. When the child begins to eat complementary foods, food preparation, food storage and hygiene become important. Because food must be eaten in small amounts frequently, storing it hygienically is most important in the period from 6 months to 18 months. During the critical period of the second year of life, children may not yet be able to signal desires for food effectively, and may be unable to obtain food on their own. At this age, language development and gross motor skills may increase a child's ability to obtain food.

Care that is appropriate at one age may not be appropriate at another age. For example, regular mealtimes are probably helpful in the second or third years of life but scheduled times for breastfeeds in the first year usually lessen intake or shorten breastfeeding durations. Active spooning of food is appropriate for a 7 month old but inappropriate for a normal 2 year old who

wants to feed himself. Holding and carrying a child is a good way to provide love to a young infant, but as children get older, they profit from stories, games, and play with family members as well. Warmth and affection from caregivers are important at all ages.

2.1. Care for Women

Men in Vietnam were asked to relieve the workload for their wives in the last trimester of pregnancy. The result was that women rested more, and had children with higher birth weights (Save the Children, Vietnam, reported by Steve Woodhouse in Richardson, 1995).

Care for Women --

During pregnancy and lactation

- Provision of extra amount of family foods
- Workload reduction and support
- Facilitating prenatal care and safe birthing
- Postpartum rest

Reproductive Health

- Delayed age at first pregnancy
- Support for birth spacing

Physical Health and Nutritional Status

- Provision of a fair share of family food at all ages
- Protection from physical abuse

Mental Health, Stress and Self-confidence

- Reduction of stress
- Enhanced self-confidence and esteem
- Protection from emotional abuse

Autonomy and/or Respect in the Family

- Adequate decision-making power
- Access to family income, assets and credit

Workload and Time

- Shared workload

Education

- Support of equal access to school for girls
- Support of women's access to information

Care that the family and community should provide to women is discussed here, and Section 3.1.1. describes how care for women as mothers, a human resource, affects their children.

Care During Pregnancy and Lactation. The health and nutritional status of the pregnant and

lactating mother are critical for the outcome of pregnancy and subsequently for children's growth and development. Pregnancy, childbirth, and lactation are particularly demanding for women, and a family can care for them by providing support during this period.. Even small changes at the family level can influence birth outcomes.

The quality of women's diets during pregnancy and lactation is critical for themselves and their children. Children born to anemic mothers are often stunted and ill. Children born to iodine-deficient mothers may be apathetic, retarded, or have congenital abnormalities. Poorly nourished mothers have higher rates of miscarriage, stillbirth, and maternal mortality. The mother's vitamin A status directly affects the infant's intake through breastmilk consumption, and affects the child's resistance to diseases such as measles. Women need to have adequate dietary intakes of Vitamin A during pregnancy and lactation to ensure optimal Vitamin A status in the young infant. Although family food may be limited, families can care for women by making sure that they receive an extra amount of the family food. Families also need to be aware of the possible negative impact of beliefs about food restrictions on women's diets during this period. A higher potency capsule of vitamin A given at birth may also help.

Too often, a woman who is pregnant or breastfeeding is expected to perform the same kinds of chores, and receive the same amounts of the family foods, as a non-pregnant, non-lactating woman. These beliefs may be held by the woman herself, as well as by her family. Families can support women by relieving them of work burdens both prenatally and postnatally. Families can also support women in getting health care prenatally and postnatally. Helping the woman to get good birthing care with a trained TBA, following the recommendations of Safe Motherhood, or to deliver in a Baby Friendly hospital are examples of family support. Fathers can make especially important contributions during this period.

Reproductive Health. When girls begin childbearing before their own growth has been completed, risks both for them and their children are greater. Families can support these girls in delaying initial childbearing. If childbearing cannot be delayed, young pregnant women can be encouraged to receive antenatal care and nutritional supplements, especially vitamin A in low doses, iron and zinc in order to accelerate maternal skeletal growth (Harrison, 1985).

Supporting women in spacing births allows them to have increased time following delivery before subsequent pregnancies, enabling them to replenish nutrient stores and have more time for the care of each child. Children born following short birth intervals have higher infant mortality and higher rates of malnutrition.

Physical Health and Nutritional Status. Nearly half of all women in developing countries are anemic. It is estimated that anemia contributes about 20% to the maternal mortality rate (Ross, 1996). Stunting (low height for age) affects nearly half of all women over the age of 15 in developing countries and is associated with increased maternal mortality and illness during delivery and a higher prevalence of low birth weight infants (Martorell et al., 1996; Leslie, 1995). Nutrition needs to be seen from a life-span perspective. The nutritional status of the young girl will play a significant role in the birthweight and subsequent nutritional status of her children. Since growth appears to be most affected during the prenatal period and the first three years of life, special attention to the early nutrition of girls can help prevent stunting among

women in the future. Families can care for women by ensuring them a fair share of family food and resources at all ages. The status of women in society can play a major role in the care women receive in their families, both as children and as adults (Ramalingaswami, Jonsson & Rohde, 1996).

Prevention of the physical abuse of women can reduce a major cause of morbidity and mortality throughout the world. In the US, for example, abuse of women by their spouses is the leading cause of injury among women of reproductive age. Reports from other countries suggest that between 20-60% of women have experienced physical or emotional abuse as adults.

Both physical and emotional abuse of women affects their mental health as well as their physical health. As stated by UNIFEM (United Nations Fund for Women), “women can not lend their labour or creative ideas fully if they are burdened with the physical and psychological scars of abuse” (Carillo, 1992).

Mental Health, Stress, and Self-confidence. Although less often studied in developing countries, stress, anxiety, and even depression are disturbingly common among poor women. Mental health has been a goal of the World Summit on Health. Anxiety, little self-confidence, and a “learned helplessness” or passivity are often the result of the stresses of poverty, low status in the family and community, and lack of control over basic life decisions such as reproduction and child care. Emotional abuse, such as listening to insults or denigrations from a spouse or family member, is also disturbingly common. Social support has been shown to be an effective strategy for reducing stress and increasing self-esteem. Women who have been successful breastfeeders have increased their self-confidence. However, basic determinants of poor mental health, such as the unequal legal status of women or lack of life options must also be addressed.

Autonomy and/or Respect in the Family. The woman’s status at home can influence her entitlement to family resources such as food, health care, and the support she receives. This status will be influenced by family resources, her own assets, the family structure (e.g. presence of a mother-in-law, whether she has borne sons), and the general status of women in society. Women who have or control an income may have more decision-making power in the family. Lack of access to decision-making power about use of time, family income, and family assets (e.g., through inheritance laws) can undermine women’s self-esteem and self-confidence, and her ability to care for her children and herself.

Workload and Time. Women have been found to have much busier days on average than their male partners (McGuire & Popkin, 1990). Major time-consuming activities are household production, such as getting water and fuel, food preparation and health care for children, and economic production, such as agricultural labor, and income generation activities. The time costs of household production can be decreased through appropriate technologies, such as food mills and household water sources but also by sharing the workload within the household.

Even in industrialized countries lack of time is a limitation for child care.

Education. The excessive workload of women and lack of freedom and mobility often limits their access to educational opportunities as adults and as young girls. Ensuring women’s access

to education both as children, and as adults is an example of care for women. Effects on children are discussed in Section 3.1.1.

How Children's Characteristics Affect Care: Gender Preferences. Throughout this section, the significance of gender for care has been emphasized. In some societies, girls receive equal treatment in access to food, health care, education, attention and affection, whereas in others, girls receive less. In South Asia and China, where discrimination against girls has been most clearly documented, girls have been found to receive less timely medical care, a smaller proportion of the family food, and less breastfeeding. Gender differences can also be seen in son preference, or the ratio of women who state that they would like their next child to be a boy compared to those who would like their next child to be a girl. In South Asia, boys are strongly preferred, whereas in Latin America and parts of Sub-Saharan Africa, preferences are more equal.

2.2. Breastfeeding and Feeding Practices

In Mexico, women who spent more time in feeding their children, offered more helpings and encouraged children to eat more, had children with better growth rate (Zeitlin et al., 1989).

Breastfeeding and Feeding Practices

Exclusive breastfeeding

- Exclusive breastfeeding for about six months
- Initiation within first hour to hour after birth
- Breastfeeding on demand
- Development of skills of breastmilk expression
- Protection from commercial pressures for artificial feeding

Complementary feeding and sustained breastfeeding

- Timely introduction of complementary foods
- Breastfeeding into the second year
- Adequate complementary foods (energy and nutrient density, quantity)
- Frequent feeding

Active complementary feeding practices

- Adaptation to psychomotor abilities for feeding
- Feeding responsively
- Adequate feeding situation

Adaptation to family diet

- Ensuring adequate intra-household food distribution
- Appropriate response to poor appetite in young children

2.2.1. Exclusive Breastfeeding.

Exclusive Breastfeeding for About Six Months. Recent research has provided additional support

for the importance of exclusive breastfeeding for about the first six months of life for children's growth and development. Infants who are exclusively breastfed have lower rates of infection with diarrhea, acute respiratory infections and earaches, and may have less asthma, lymphomas and dental caries. Breastfeeding is not only a caring practice, but it can also influence other caring practices, affecting children's ability to elicit care and the caregivers's ability to give it (Armstrong, 1995). For example, when a baby is breastfed, the repeated contact with the mother may increase the infant's ability to elicit a strong bond from the mother.

Providing foods or liquids in addition to breastmilk during the first six months of life has been shown to have no benefits on growth (Cohen et al., 1994; Martínez et al., 1994). Giving complementary foods during this time replaces the nutrients provided by breastmilk, and increases the risk of diarrhea. When breastfed children become ill they tend to maintain energy intake by sustaining a high frequency of breastfeeding while artificially fed infants often have reduced energy intakes (Brown et al., 1995).

Initiation within an Hour after Birth, Breastfeeding on Demand, Developing Skills of Breastmilk Expression, and frequent contact between mother and child help mothers to exclusively breastfeed their infants for the recommended six months. Having a family which provides social support for breastfeeding may be critical to successful breastfeeding. In malnourished mothers maternal dietary supplementation may be advisable, both to prevent maternal depletion and to optimize breastmilk nutrient levels.

Protection from Commercial Pressures for Artificial Feeding. Women should be protected from the pressures of commercial producers of breastmilk substitutes and other infant feeding products, as stated in the International Code of Marketing of Breastmilk Substitutes. Violation of the Code through promotion of breastmilk substitutes, bottles, teats and pacifiers has been shown to have a negative effect on exclusive and continued breastfeeding. All foods and drinks including breastmilk substitutes given under the age of four months displace breastmilk from the diet but are nutritionally inferior. Such foods do not complement continued breastmilk feedings but simply reduce the breastmilk intake.

How Children's Characteristics Affect Care: Control of Breastmilk Output. Infants differ markedly in how often and how long they want to breastfeed. In this way, they control the amount of milk produced by their mothers. At any stage in the breastfeeding process, an infant who has unrestricted access to breastfeeding can increase the mother's production of milk to meet his or her needs. Low birth weight babies will need extra help and protection from the use of pacifiers.

2.2.2. Complementary Feeding and Sustained Breastfeeding

Timely Introduction of Complementary Foods. At the age of about six months, infants need safe and adequate amounts of complementary foods in addition to breastmilk in order to meet their nutrient requirements for optimal growth and development (WHO, 1994). Between the ages of four and six months, most children need only exclusive breastfeeding. Any growth faltering should first be treated by returning to exclusive breastfeeding and giving at least 12 unrestricted breastfeeds in 24 hours for a week to increase the child's breastmilk intake. Only if the child

does not gain weight after this week, and the child remains restless after feeds or reaches actively for food should small amounts of nutrient rich complementary foods be given after one or two of the 12 breastfeeds, which should be continued (WHO/UNICEF 1996).

Breastfeeding into the Second Year. Breastfeeding continues to be vital once complementary foods are started because many foods offered to young infants have less nutrient density than breastmilk. Sustained breastfeeding into the second year offers a source of energy, protein and micro-nutrients and protection from diarrhea and other infections. When mothers sleep with their infants and breastfeed during the night, they may be more likely to continue milk production into the second year. Mothers may need to actively encourage their children to continue breastfeeding through the second year (UNICEF Innocenti Declaration, 1990b). This is especially true when there are long periods of separation of mothers and their breastfed children during the day, or when continued breastfeeding is not yet socially supported.

Adequate Complementary Foods. Soft enriched especially prepared foods from local sources are appropriate from about the age of six months. These complementary foods, sometimes called transitional foods, are given in addition to as much breastmilk or breastmilk substitute as the child was already taking. Such foods cannot replace breastmilk in the diet of the child under 12 months. Complementary foods should be relatively viscous and have high nutrient density. Children need these transitional foods only from 6 to 12 months; by 12 months, the child can eat the family diet with some adaptations. Children may be able to eat semi-solid foods and foods they can hold in a shorter period of time than other thinner family foods.

Food hygiene is very important to prevent illness due to contamination (Section 2.4). Foods prepared for young children must contain sufficient energy, protein, vitamins and minerals to meet the child's needs. The recommended energy density of complementary foods depends on the age of the child and breastmilk intake.

The usual indicator of adequacy is infant growth. Micronutrient status, susceptibility to infections, physical activity, and behavioural development are also important outcomes (Brown, Allen & Dewey, 1997).

As long as the child is still breastfeeding, the protein content of complementary foods is not likely to be limiting in most populations; however, meeting micronutrient needs from complementary foods appears to be the greatest challenge. The most frequent deficiencies in a young child's diet are iron and Vitamin A. Additionally, some diets are low in zinc and calcium (Brown et al., 1996). Research to date suggests that it is practically impossible to supply enough iron from unmodified complementary foods to meet iron needs of infants prior to 12 months without fortification or iron supplementation. After the first year of life, iron needs can theoretically be met from foods such as liver, fish and beef but in most populations provision of sufficient amounts of these foods is not likely.

For breastfed children vitamin A needs can be met by breastfeeding and appropriate selection of complementary foods. In vitamin A deficient areas, improved vitamin A intake of mothers and/or greater intake of vitamin A-rich complementary foods by children would be advisable. Vitamin A supplementation of mothers and/or children is an alternative.

Frequent Feeding. The frequency of feeding needed for infants to meet energy requirements depends on the energy density of the foods. Due to their small stomach sizes, frequent feeding is essential. For breastfed children from 6-8 months, two meals per day may be sufficient, but by eight months or older, feeding of complementary foods three to four times a day is recommended, although optimal feeding frequency depends on both nursing frequency and the energy density of complementary foods. Because energy dense foods tend to be more expensive, families may not have them available, and may use lower density foods. High frequency feedings of low nutrient density foods could have an adverse effect on breastmilk intake and on total nutrient intake (Brown, Allen & Dewey et al., 1996). Therefore the energy density of the typical complementary food should be assessed prior to making recommendations on increasing frequency. If frequency should be increased, between-meal snacks are recommended. Non-breastfed children need food more often and in greater amounts, with special attention to the protein, micronutrient and energy qualities of the diet.

How Children's Characteristics Affect Care: Readiness for Complementary Foods. Children signal their readiness for complementary foods by reaching for family members' food, making sounds at the sight of food, or imitating eating behaviors. After the child has reached four months, these signals can suggest a desire for other foods. Tastes can be given, but breastmilk intake should be maintained.

2.2.3. Active Complementary Feeding Practices

The ways that caregivers facilitate and encourage eating by young children can play a large role in children's nutrient intake. Three behavioural influences on intake are: 1) adapting the feeding method to the child's psychomotor abilities (e.g., spoon handling); 2) feeding responsively, including caregiver's encouragement to eat, attention to the child's appetite, timing of feeding, child versus caregiver control of eating, and an affectionate or warm style of relating to the child during feeding; and 3) the feeding situation, including freedom from distraction, a consistent feeding schedule, and supervision and protection during eating.

Adaption to Psychomotor Abilities to Feed Themselves. Adapting to children's changing motor skills can require close attention by the caregiver, since these abilities change dramatically during the first two years of life. For example, children's capacity to process food by suckling, sucking, munching or chewing increases with age. By 7 months of age, the gag reflex moves to the posterior third of the tongue, permitting the child to ingest solids more easily than earlier (Milla, 1991, cited in Brown et al., 1996). The time required for a child to eat a certain amount decreases with age for solid and viscous foods, but not for thinner purees. Children's abilities to hold a spoon, handle a cup, or grasp a piece of solid food also increase with age. Caregivers need to be sure that children are capable of the self-feeding expected of them. Children also have a drive for independence, and may eat more if they are allowed to use newly learned finger skills to pick up foods.

Feeding Responsively can be particularly important for young children. Caregivers can encourage, cajole, offer more helpings, talk to children while eating, and monitor how much the child eats. The amount of food that children consume may depend more on the caregivers' active encouragement of eating than the amount offered. Helping mothers encourage their children to

eat may be as effective as telling mothers what to feed their children.

Children should be encouraged to ask for more. Mothers and other caregivers who show or model for children how to eat healthy foods will encourage children's eating, especially when food quality is low. A relaxed and comfortable atmosphere without conflict will increase intake. With gentle encouragement and responsive feeding, evidence shows that children will often eat more than if they are left without encouragement.

Caregiver understanding of, and response to children's hunger cues may be critical for adequate food intake. For example, if caregivers perceive a child's typical mouthing actions in response to new food sensations as a food refusal and cease to feed, a child will receive less food.

Caregivers may not be aware of how much their children eat; one project found that when mothers paid more attention to the quantity children ate, they were surprised by the small amounts, and were willing to increase amounts fed. When children are fed from a common pot, the amount eaten is not easy to determine. Having a separate bowl for each child can help determine quantities eaten and protect the slow eater.

The person who is doing the feeding may influence the child's willingness to eat; often children will refuse food if the preferred caregiver is not present. Patience and understanding, plus recognizing the child's need to gain familiarity with the caregiver, will increase the chances of successful feeding.

Cultures vary along a dimension of control of eating; at one extreme the caregiver has all of the control, and children should be force-fed, whereas in the other extreme, control is given entirely to the child. Neither extreme is good for children. When too much control is in the hands of the caregiver, force feeding, or continued and even intrusive pressure on children to eat, is seen (Brown et al., 1988; Dettwyler, 1989). Rather than providing an opportunity for interaction and cognitive and social enhancement, feeding can become a time of conflict with intrusive ineffective caregiver strategies and high levels of child refusal. A responsive caregiver who can adapt to child refusals with gentle encouragement can often increase food intake.

Caregivers on the other end of the dimension are passive feeders, leaving the initiative to eat to children. At a certain age, children need and want autonomy in eating; however, before that time, too much autonomy will lead to insufficient intake. Passive feeding may be due to lack of time and energy, or to beliefs that children should not be pressured to eat, that "the stomach knows its limits". Although this belief may seem reasonable, if a child has anorexia or poor appetite, extra encouragement may be necessary for adequate nutrient intake. Caregivers have been observed to encourage feeding only after seeing that the child is refusing to eat, which may simply result in fruitless battles.

The feeding situation may also influence food intake of young children. Children can be fed on a regular basis each day, sitting in a prescribed place with food easily accessible, or feeding can occur while children wander around, or at the time that the caregiver finds convenient. If the main meal is prepared late at night, children may fall asleep before it is completed. Children can be easily distracted, particularly if food is difficult to eat (e.g. soup with a spoon the child is

unable to use) or not particularly tasty. If supervision of feeding is not adequate, other siblings or even animals may take advantage of a young child's vulnerability and take food away, or food may be spilled on the ground. The best feeding situation for a child is a special place that is consistent from day to day, and protected from distractions and intrusions.

How Children's Characteristics Affect Care: Appetite and Interest. As most parents know, children with good appetites and interest in food are likely to eat enough. Unhealthy children are often less hungry and they may demand less food and finish less on their own than healthy children. Children without much appetite (anorexic children) are difficult to feed (Bentley et al., 1995). Factors that reduce a child's appetite may include a monotonous diet, lack of nutrients needed for appetite (e.g. zinc), illnesses such as diarrhea, malaria, measles, intestinal parasites, chronic malnutrition, sores in the mouth (such as caused by teething), or anxiety (Dettwyler, 1989). When anorexia is a problem, caregivers need to actively encourage food consumption, particularly for the child under three. But this means ensuring that caregivers have the time, knowledge, resources, self-confidence and support to encourage anorexic children to eat.

2.2.4. Adaptation to the Family Diet

Ensure adequate intra-household food distribution. During the second year family foods begin to be appropriate complements for breastfeeding and as the child takes increasing quantities, may start to replace it without adverse nutritional effects. The transition from sustained breastfeeding and complementary foods to the family diet and complete cessation of breastfeeding should be gradual, allowing the child to return to the breast occasionally. Caregivers may expect that the child can feed herself/himself in this transition. If these expectations for self-feeding are too great, the child may not get enough food during this period. During this transition, caregivers should continue to be aware of how much children eat, and of the possibility of anorexia.

Families should be sure to allocate high nutrient density foods to the child, and be sure that the child gets a fair share of the family food. Greater variety of foods given to children in this period seems to have a positive effect on overall intake. If food is served in a common dish, the child may not be able to compete well enough for food. Family food may be prepared with tastes that the child isn't ready for, such as hot spices, and ideally food for the child should be removed before spice is added. Children's access to food needs to be protected during this critical stage.

Recent studies have shown a strong relationship between consuming animal products and child growth. Micronutrients such as zinc or iron contained in animal products may enhance growth. Additions of even small amounts of animal products, such as liver or blood, may be helpful in improving children's diets. Vegetarians need to be particularly concerned that children receive adequate amounts of protein, iron and zinc and perhaps vitamin B12 .

Appropriate responses to poor appetite in young children. Caregivers' responses to child appetite can result in the shaping of children's behaviour to reduce demand for food. When food is scarce, caregivers may tend to discourage children from requesting food, leading to less nutrient intake when food becomes more plentiful. Sometimes the caregivers feel that a child should learn not to ask for food, or that immediate responses to children's requests for food will represent "spoiling" or inappropriate indulgence of a child. In these cases, the chances of the

child achieving adequate intake are lowered, since child demand plays a large role in the amount of food ingested.

Over-feeding and child overweight are emerging as public health problems in more urbanized areas. Often diets are of low quality, but intakes are higher than necessary. Again, feeding practices and attitudes about feeding play a significant role in this form of poor nutrition.

How Children's Characteristics Affect Adaptation to the Family Diet. A child with disabilities may need special help with feeding, and for some children, differences in taste preferences may create problems. In parts of South Asia, girl children may be offered less and poorer quality food. In other areas, boys may be more malnourished. Recent surveys have found that boys are more likely to be stunted than girls in approximately half of the countries studied, although girls are more likely to be underweight than are boys (United Nations, 1995).

2.3. Psycho-social Care

Children in the USA born prematurely who were stroked and touched regularly grew significantly more than children left alone, even without additional foods (Field et al., 1986).

The common element in caregiving practices which lead to psycho-social adaptation is responsiveness of the caregiver to children's behavior. Additionally, the caregiver's affection, attention and involvement and encouragement of autonomy, exploration and learning are correlated with better nutritional status.

Psycho-social Care --

- Responsiveness to developmental milestones and cues
- Adapting behaviour to child's developmental level
- Attention to low activity levels and slow development of child
- Attention, affection, and involvement
- Frequent positive interactions (touching, holding, talking)
- Maintenance of valuable traditional practices
- Encouragement of autonomy, exploration and learning
- Encouragement of playing, exploration, talking
- Adoption of a teaching or guiding role
- Prevention of and Protection from Child Abuse and Violence

Responsiveness to developmental milestones and cues affects children's growth and development. This includes the extent to which caregivers are aware of their children's signals and needs, interpret them accurately, and respond to them promptly, appropriately and consistently (Engle & Ricciuti, 1995). What the most appropriate response is changes with the child's developmental stage. For a very young child, the response to fussing may be touching and holding, whereas at an older age, it could involve showing the right behavior or talking.

Responsiveness can be illustrated by the caregiver's behaviour when a child cries or fusses. If the caregiver does not have time to respond, or misinterprets the reason for the crying, the caregiver may miss an opportunity to feed the child when the child is hungry. Helping caregivers develop the ability to respond to children's cues may require reducing constraints to care for women since responsiveness necessitates having time and physical and mental health. When caregivers are under stress from too many responsibilities and insufficient resources, they may be unable to respond appropriately.

Responsiveness is also important for developing language. Even before they can talk, children understand simple adult speech, and can learn the give and take of conversation. Caregivers who talk to their children in simple language, and respond to children's verbal play, will help their children learn language earlier.

Parents' expectations of the age at which children learn important skills like walking or speaking their first word (Developmental Milestones) also affects their children's development; parents who expect earlier development are likely to have children who develop earlier. Helping parents to be aware of developmental stages can have positive effects on children's development.

One of the most common indicators that a child is not developing well is listlessness, low activity level or delayed achievement of developmental milestones. An alert caregiver will be able to notice this problem, and try to encourage the child more or find out the reason for the low activity. This low activity is often a result of illness or poor nutrition.

The attention, affection and involvement that caregivers show to children influences their growth and development. The most important factor in a child's healthy development is to have at least one strong relationship (attachment) with a caring adult who values the well-being of the child. Lack of a consistent caregiver can create additional risks for children.

Frequent positive interactions, caring about children's well-being on a day to day basis and taking appropriate actions for children's benefit are ways in which caregivers show attention and involvement. Affection can be shown by physical, visual and verbal contact with children; the way affection is expressed will vary by culture. Even before a child can talk, she can understand and enjoy language and songs, and will develop better language abilities.

Maintenance of valuable traditional practices. Traditional customs often provide warmth and support for young children. Examples are infant massage in India, postpartum rest of mother and child in many Muslim countries, and responsiveness to child's desires in Bali. These customs may be undermined by an encroachment of Western values and urbanization.

Breastfeeding not only provides food, but also much-needed attention and affection to the child. Although it is possible for bottle-feeding mothers to provide similar amounts of affection, too many times bottles are propped, or the close touching, holding, and mutual gaze which are a part of breastfeeding do not occur.

Encouragement of autonomy, exploration and learning by caregivers can improve children's intellectual development and nutritional status. Young children are born with the ability to learn, but they need the encouragement and freedom to be able to develop that ability. Several studies in developing countries found that malnourished children who had been given verbal and cognitive stimulation had higher growth rates than those who had not (e.g., Super et al., 1990). Caregivers need to provide safe conditions for play, encourage exploration and provide learning opportunities in addition to good nutrition.

There are many ways that caregivers can encourage a child's development - caregivers are the child's first teachers. Children at all ages watch and copy adults and older siblings, and can learn from a kind of "guided apprenticeship" to do adult tasks without specific teaching. Children learn from games, play and guided imitation. Caregivers who allow children to play and who interact with them frequently can stimulate their cognitive, language, social, and motor development. One of the important things caregivers can teach children is proper self-care, such as hygiene behaviour (hand-washing, cleaning themselves, and feeding themselves hygienically). Often children can learn much more than parents expect them to.

Having time is necessary but not sufficient to allow for beneficial psycho-social interaction; caregivers need to interact positively and be responsible for child care tasks and decisions. Caregivers have their own ideas about what is important for child development, and why children behave the way they do. Understanding these ideas can be helpful in developing programs for parents.

Prevention of, and protection from child abuse and violence are ways of caring for children. Abuse of children beyond what is culturally acceptable results in a vulnerable adult, who may be more likely to repeat the abuse. Children exposed to aggression, and children who have been victimized are likely to repeat these roles. Too often children are exposed to the violence of war or natural disasters, and these experiences can result in stress which can have psychological and even biological effects years later.

How Children's Characteristics Affect Care: Eliciting Attention. Caregivers and children influence each other. For example, children with more advanced motor, social or language development may be more effective in eliciting their caregiver's affection and attention (similar to the processes noted for food intake). Their activity level or nutritional status may also influence the attention they receive; an overworked caregiver may spend less time with a less active, possibly poorly nourished child than with a more active, better nourished child, because the well-nourished child has the energy to ask for care, through talking, motor actions and gestures, or crying. Timid children may also receive less attention when there are many caregivers and few children.

Children may also elicit less psycho-social care if they are less valued as a function of gender, disability, or physical unattractiveness. High birth order children (fifth or higher) receive less adult attention. In some cultures, a young mother's first-born child may be raised by a grandmother in rural area, and may be disadvantaged compared to later-born children. Some children need extra psycho-social care because of vulnerabilities such as prematurity, disability, or inadequate care in the past (e.g., victims of war or abuse).

2.4. Food Preparation

Women who have to spend many hours working in fields often leave foods for their older children to give to their youngest children. In one case, the young caregiver was considered too small to start a fire, so she had to give the baby prepared food which had been sitting for several hours. At the advice of a nutrition worker, the food was fermented to reduce possibilities of infection (Mensah, personal communication, Ghana).

Household food preparation, cooking, and processing. A substantial amount of time is spent each day in food processing, preparation and cooking, and the effort and skill involved in these activities affect child nutrition - thus they are also caring practices. Preparation of special foods for infants (e.g., mashing and grinding), adding ingredients to enhance nutrient content or using germination or fermentation to protect food requires caregivers' knowledge, skills and time. Time spent in food preparation and cooking can be reduced by improving cooking resources (e.g. providing fuel-efficient stoves) or by encouraging other family members to share the work. Low technology devices such as hand grinders to process complementary foods could help.

Food Storage. Storing food safely can help reduce the time families spend in procuring and preparing foods and reduce food losses. Food storage can be improved by using screen coverings over food, thermos flasks, closed containers for water, secure bins or community silos. Safe storage for dishes and cooking utensils can help in preparing safe food.

Food hygiene is particularly important because the consumption of contaminated foods is a major cause of diarrhea (WHO, 1993a). Two practices that increase the risk of food contamination are 1) preparation of food several hours before it is consumed and storage at temperatures that promote growth of pathogens, and 2) insufficient cooking or reheating of food. If these two errors are avoided, the majority of food borne illnesses could be avoided.

Foods should be cooked thoroughly and fed as soon as they are cool enough to eat. Foods for infants should not be stored, unless they can be kept cold (below 10°C) or hot (above 60°C). However, breastmilk is safer to store for extended periods. Expressed breastmilk can be kept for approximately eight hours at room temperature in a covered clean container.

Foods that do not need to be cooked, such as a banana peeled immediately prior to consumption, are another means of providing foods free from contamination. Acidified or fermented foods (such as yoghurt or sour porridge), may be lower in contaminants since the acid helps prevent the growth of bacteria.

Washing dishes and cooking utensils and cleaning the cooking area also reduce risks of contamination. Because feeding bottles are particularly hard to clean, they should not be used for infants and young children. For this and other reasons, cups are recommended as superior for feeding infants.

2.5. Hygiene Practices

In Bangladesh, mothers who used their saris to wipe a dirty child, clean dirty eating utensils, or blow noses were more likely to have children with diarrhea than mothers who didn't, probably because the sari had a role in the transmission of disease. This role was not recognized by many of the women (Stanton and Clements, 1986).

In Lesotho, families who used only improved water supplies when their children were between 13 and 60 months had children who gained on average 235 g more in weight and 0.4 cm more in height over a six-month period than families who used mixed quality water supplies (Esrey et al., 1988).

Hygiene Practices --

Personal Hygiene Practices

- Hand washing
- Bathing and cleaning child

Household Hygiene Practices

- Cleaning of house and children's play area
- Adequate disposal of child's wastes
- Use of sanitary facilities
- Making water safe, and choosing safe water

Hygiene practices directly affect the cleanliness of the environment and the number of infectious agents children ingest, either through contaminated food or water, or by placing contaminated objects in their mouths. The caregiver's behaviour plays a major role in the child's contamination.

Personal hygiene practices affect the level of contaminants. They need especially to wash their hands with soap before handling cooked foods and feeding children, after defecation, and after handling children's wastes. They should make sure that children's hands are kept as clean as possible. In many areas, hand washing is infrequent, and a change will require effort and resources of water and soap. Children must be kept clean through bathing.

Household hygiene is also important since the household environment must be kept clean from animal and human feces and other contaminants. How caregivers dispose of these wastes can

have a major effect on child illness. Use of sanitary facilities by all family members is important, and when children reach the age of walking they should be instructed where to defecate. Controlling feces lowers the chance of worm infestations.

Caregivers should be able to make water safe. These practices depend on enough clean water and safe places to store it, soap, adequate disposal arrangements, and most of all, the time and energy of the caregiver.

Between the ages of 12-36 months, children require high levels of care as well as protection from infection as they begin to be able to walk and explore their environment. They do not yet have the wisdom to decide what is safe to ingest, and may differ in their ability to understand limits. Active children, or children with greater tendencies to place objects in their mouths, may be at greater risk. Worm infestations increase with age and mobility.

2.6. Home Health Practices

Studies in a variety of countries show that 70 to 80% of health care treatment is performed at home by women, particularly by mothers (World Bank, 1994).

Good home health practices help prevent illnesses, and through good treatment reduce the negative impact that illnesses have on children's growth and development.

Home Health Practices –

Home management of illnesses

- Prevention of illness

- Diagnosing illness

- Providing home treatment

Utilization of Health services

- Preventive and promotive health services

Timely seeking of curative health services

Home-based protection

- Control of pests (mosquito nets, rat-traps)

- Avoidance of accidents (burns, falls, bites)

- Prevention of abuse/violence

Home management of illness includes the prevention of illness, its diagnosis and subsequent home treatment. Caregivers recognize and diagnose diarrhea and provide home remedies, including oral rehydration solution. Because diarrhea and other illnesses often result in anorexia, caregivers must use their skills to increase feeding during illness and convalescence. Continued or increased breastfeeding during illness helps compensate for lowered intake of other foods.

Utilization of health services, including growth monitoring and immunization, takes time and effort. When children cannot be adequately treated at home, curative health services must be consulted as soon as the child seems to need help. Sometimes the caregiver cannot take the child to the health care services because she does not have enough decision-making power to be able to decide alone, and must wait for other family members to return home. Initiatives such as the Integrated Management of Childhood Illnesses will improve the effectiveness of first-line medical care if sought early enough. After visiting a health care center, following medical recommendations also takes time and resources. Health services can support caregivers by providing community-based services, keeping waiting times at clinics short, informing caregivers fully and accurately, and treating them with respect.

Home-based protection includes control of pests (e.g., insects, rats), and avoiding accidents (burns, falls, poisoning). Malaria has a major impact on nutrition of children and prevention of mosquito bites through use of bed nets is thus an important care behaviour. When a child's caregiver is also a child, protection from dangerous situations and prevention of accidents may be lacking. Children also need protection from common forms of abuse, such as severe physical punishment or other physical harm, which can occur both within and outside the family. Abuse can affect children's psycho-social and mental development, as well as their growth.

How Children's Characteristics Influence Seeking Health Care. As with other aspects of care, characteristics of the child can influence her ability to receive care. More valued children may receive medical treatment more often and sooner, and gender and birth order are often the basis for value.

3. Resources for Care

Three kinds of resources which affect care are human resources, such as knowledge or health, economic resources and their control, and organizational resources (Jonsson, 1995). Human, economic and organizational resources have direct effects on care practices, and therefore on child growth and development. They also have indirect effects through household food security and use of health services and the healthiness of the environment on child growth and development. Resources for care can be identified at the family level and the community level, and are influenced by political structures, the cultural context, social structures and context, and economic structures. One of the main ways these resources and basic determinants affect care is information, education, and communication.

Three kinds of resources which affect care are human resources, such as knowledge or health, economic resources and their control, and organizational resources (Jonsson, 1995). Human, economic and organizational resources have direct effects on care practices, and therefore on child growth and development. They also have indirect effects through household food security and use of health services and the healthiness of the environment on child growth and development. Resources for care can be identified.

3.1. Resources for Care at the Family and Community Level

Resources available for care often depend on the status and characteristics of the person who provides the care. Although this person is usually the mother, in many situations it is an older sibling, a grandparent, another relative, and a neighbor or hired person. In many cultures, siblings provide a significant amount of care even when the mother is present. However, families are in the midst of significant change worldwide. Siblings are more likely to be in school, and the percent of women who are economically active continues to grow. “Over the past two decades, economic activity rates show increases for women in all regions except sub-Saharan Africa and eastern Asia and all of the increases are large ones except in eastern Europe, central Asia and Oceania. By contrast, average economic activity rates have declined significantly for men everywhere except central Asia” (United Nations, 1995, p. 110).

These changes in women’s economic rates probably mean that alternate caregivers are more common than before. Therefore, this discussion describes the human resources for care in terms of the “caregiver”, rather than the mother or any particular relative.

Resources for Care

Human Resources

- Knowledge, Beliefs, and Schooling
- Physical Health and Nutritional Status
- Mental Health, Stress, and Self-Confidence
- Fathers

Economic Resources

- Control of Family Resources and Assets
- Workload and Time

Organizational Support

- Alternate caregivers
- Community support for care

3.1.1. Human Resources

Knowledge, Beliefs, Attitudes and Schooling.

In Nicaragua, some mothers believed that when children refused food, mothers could encourage more eating, whereas others believed that children should just eat what they wanted to. Mothers who believed that they could encourage eating had better nourished children than the other group (Engle et al., 1995).

Beliefs, attitudes and knowledge about child care practices can have a significant impact on child development. For example, accurate knowledge and understanding about the causes and consequences of malnutrition and are critical for child nutrition. Caregivers also need to

recognize the warning signs of growth faltering. The caregiver's knowledge of exclusive breastfeeding, good complementary foods, active complementary feeding, practices and diagnosis and treatment of illnesses are all important for children's growth.

Knowledge can come from schooling and other types of education, and from the caregiver's own experience. One study found that mothers with more experience had more strategies to cope with children's problems such as diarrheal diseases than did younger mothers (Martínez & Saucedo, 1991). It is essential that programs recognize the knowledge which caregivers already have, and strive to support it and build on it. Therefore, knowledge and beliefs should be assessed using qualitative and participative methods.

Education for caregivers is one of the most important investments that can be made in children's growth and development. We know little about the effects of the father's education or the education of alternate caregivers on children's nutritional status, but it is generally recognized that mothers with more education have better nourished children. More educated mothers may be more assertive and make better use of health services, provide better child care such as feeding, have more hygienic household practices and personal habits, have an increased knowledge of appropriate child rearing, or have higher status in the family and thus more control of family resources.

Physical Health and Nutritional Status.

Egyptian mothers with anemia were found to interact less often with their infants, to talk to them less and hold them less than mothers without anemia (Rahmanifar et al., 1992).

A caregiver's good health can improve care for children. When caregivers are ill, they are less able to provide optimal care for children. AIDS and, to a lesser extent, untreated reproductive tract infections can have dramatic effects on care (UNICEF, 1993). One study found that women with heavy parasite loads spent less time in child care.

Adequate food intake may enhance caring ability for caregivers such as older siblings, who may be the last to receive food in the family. Stunting is associated with reduced work output which can affect the caregiver's ability to obtain resources needed for care and to interact with young children. Prevention of vitamin and mineral deficiencies among caregivers may facilitate care practices. Anemia reduces work output, and causes fatigue, apathy and loss of mental concentration, all of which can undermine caregivers' ability to take care of children (Winkvist, 1995).

Mental Health, Stress, and Self-Confidence.

In an urban slum in Bangladesh, the social isolation of women and the lack of extended family networks in urban areas affects their mental health, and reduces the quality of child care, even when the mother is present (UNICEF Urban Examples # 19, Immink, 1994).

Poor mental health, depression or stress can occur for any caregiver. Stress is often caused by difficult circumstances, lack of support, and lack of control over resources. It can be intensified by social isolation and overwork, the experience of many girls who work as maids. A caregiver who is experiencing depression or anxiety, or who is living under a lot of stress, will find it

difficult to provide patient, loving care. Evidence from industrialized countries suggests that depressed women are less able to provide adequate care for their children.

Enhancing the self-confidence of caregivers can improve their ability to provide care and to seek help when needed. More confident caregivers are more active feeders when children refuse food. The caregiver's emotional health may also affect children's nutritional status through increasing her capacity to be affectionate and responsive to children's needs. Self-confidence and self-esteem are often related to status within the family, and the status of women in the broader society. When caregivers' self-confidence improves, they may have a greater sense of empowerment, or a belief that they can take needed actions to improve care.

Protection from physical and emotional violence is necessary for all caregivers. Costs for children of lack of protection of caregivers are the psychological costs of observing abuse, and the poorer care provided by an abused caregiver.

Fathers

In Brazil, Fernando Barros reported that children who lived with their fathers when they were under four years old were less likely to fail in school than children whose fathers were absent, even after accounting for differences in wealth and education (reported in Richardson, 1995).

The contribution of the father is often overlooked, and can be an important human resource for his children. In many cultures, fathers may be restricted by cultural and personal attitudes from greater roles in child care, despite having more free time than mothers. In other cultures, men have a large but often unrecognized role as major decision-makers regarding the health and nutrition of their children. Fathers can have a positive effect on caregiving by supporting mothers in breastfeeding and obtaining health care, sharing more of the workload, providing direct child care., and giving warmth and affection to the child.

In almost one third of households in developing countries fathers do not reside with their children (Bruce et al., 1995). Some studies show that children with non-resident fathers appear to be as well nourished as those with fathers present, particularly in sub-Saharan Africa, whereas in others, the children are worse off. Non-resident fathers have a variety of living patterns. For example, they may be long-term migrants sending remittances, they may have visiting relationships with the child including contributions, or they may be totally separated from their children, without making any contributions. Non-residence does not necessarily mean that the father makes no contribution to his family. On the other hand, residence does not necessarily mean that the children will be better off, especially when alcohol abuse is common.

3.1.2. Economic Resources

Control of Family Resources and Assets.

In Jordan, the children of a low-status wife were more malnourished than children of a high-status wife in the same household. Access to resources was more important than the family's level of resources (Doan and Bisharat, 1990).

The poverty level of a family is one of the most important risk factors for children. However, who makes decisions within the household on resource allocation can affect children's nutrition. Many studies find that mothers are more likely to use funds which are under their control for children's nutrition than are other family members. Thus caregivers need to have access to and control over resources in order to use them for children's benefit. Usually, but not always, when women earn their own money, they have more control over resources in the family.

Income generation programs or provision of credit for women are ways to enhance women's control of resources. Especially when combined with child care and nutrition education, such activities can have benefits both for women and for children.

Workload and Time.

In the Philippines, mothers reported significantly less time in child care if they were working for income (e.g., Popkin, 1980). However, in Panama, there was no difference in total time in child care when the time spent by all family members in child care was included (Tucker, 1989).

Time is an important economic resource for care. The multiple demands on caregivers' time for income earning, agricultural labor and household production may leave little time for child care. In the absence of adequate alternate caregivers or support from the family and community for alternate care, the increased income from working may not offset the loss of child care time. Caregivers often face the dilemma of balancing their multiple responsibilities. Workload may prevent caregivers from having even minimal amounts of time to attend to children.

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When caregivers work for income, research suggests that the effects on children depend on the type of work (wage rates), flexibility of work, and the availability of good alternate caregivers. If women's wage rates are adequate, and they have adequate alternate caregivers, there is no evidence for negative effects on children. Working women can continue to breastfeed, although there is a tendency for them to introduce complementary foods earlier. However, often caregivers are forced by circumstances to earn incomes, or work in household production without adequate support. Improving the working conditions of women (increasing wage rates, workplace regulations, maternity legislation with entitlement, policies in support of breastfeeding) may be an important contribution to care resources.

Employment is often considered to be an issue for caring only in urban areas. However, in some countries more women in rural than urban areas are involved in income-generating activities. Rural women often face special difficulties because no formal child care is available and agricultural labor is physically demanding (Van Esterik, 1995). Additionally, due to heavy use of pesticides, fields are often unsafe for young children. Caregivers working within the home may

also face caregiving problems; if the work is time constrained (e.g., piece work), caregivers may be unable to devote time and attention to caring.

Programs which aim to improve child nutrition by expecting additional time inputs from primary caregivers need to be responsive to time constraints. Home-based curative health care (such as giving children oral rehydration solution or encouraging anorexic children to eat) takes time, as do seeking preventive health care services (immunization, growth monitoring or well-child clinics) and treatment of illness. Less time will be spent in these caregiving practices if waiting times at clinics are shortened and community-based services to reduce travel time can be provided.

The value of investing time in child care and stimulation of child development is not always obvious to parents. Unless parents perceive that additional time with children will have some benefit to themselves or their children, strategies to increase their available time will probably have only minimal effects on time devoted to child care (Engle & Ricciuti, 1995).

3.1.3. Organizational Resources

Alternate Caregivers. In Guatemala, when working mothers did not have a good alternate caregiving system, their children were more malnourished than children of working women with good alternate caregiving systems (Engle, 1991).

The role of the family and community in providing adequate alternate caregivers and sharing of workload for household and agricultural tasks can be critical for providing care for children. Mothers and families cope with the demands of work inside and outside the household by using alternate caregivers. Grandparents often provide care when they live near or with the family. They may be supportive of breastfeeding as a traditional practice and their support can be built upon. In some cultures they may have greater control over care resources than the mother herself. One approach to improving care could be to direct educational messages to grandparents as well as to the mother. A second is to empower the mother to make her own decisions about care within the household. The grandparent role will vary tremendously from culture to culture, some more positive for care than others. The cultural role of the grandparent needs to be evaluated locally.

Siblings often provide care. Several studies have shown that caregiving by pre-teens and young children has been associated with reduced food intake and poorer nutritional status in the cared-for children. The older sibling caregiver may not be permitted to cook and thus children's access to food may be limited or quality of food compromised when the young child is in the care of siblings. The older child may learn responsibility and nurturance, but may also be kept from school to provide care. The impact of carrying a heavy child on the sibling's physical development should also be considered.

Other non-family caregivers such as maids or neighbors may share in the provision of care for children in the community. Maids are often pre-teen girls with little experience and low status within the household. Such caregivers, especially when they are not living with their own families, are often subjected themselves to poor caregiving, overwork, or even abuse by their

employers.

Community Support for Care.

In Senegal, child malnutrition was connected with the inability of working mothers to feed their children in the middle of the day. A community feeding program was established in which others gave the children their noon meal.

Community support for caregiving is an important resource for families. These resources include informal neighborhood caregiving, home-based community care, vocationally linked day care, and parenting education and activities. For example, community kitchens and cafeterias can relieve women of household food security burdens and enable them to spend more time and other resources on child care. Communities can organize to provide child care for women workers. Health care systems based in communities can reduce women's time in obtaining care, and the responsiveness of the health care system to community needs. The Baby-Friendly Hospital Initiative and other efforts that improve the sensitivity and skills of health workers to infant feeding and care can be valuable.

Urbanization, and the breakdown of community-based institutions may place these programs at risk. However, even in urban areas, strong community ties may exist. Some urban communities are formed by the migration of members of particular rural communities. Urban-rural linkages may extend the idea of community beyond a single geographical area. When care of children is highly respected and honored by the community, the social approval given to caregivers will enable them to devote more time and effort to care, and will increase the chances that the community can organize around issues of care for women and children.

3.2. Structural Determinants of Child Survival, Growth and Development and their Relationship to Care

At the national and international levels, resources for care are influenced by policies and ideologies which support or undermine families' abilities to provide care. Spending priorities frequently favor military investment or urban industry rather than social sector funding. Safety nets may not be adequate for many circumstances, and subsidies may be non-targeted or absent. Poverty, landlessness, and the inequitable distribution of resources undermine the ability of families to provide care, and are basic determinants of malnutrition.

3.2.1. Political Structure

The state's policies on employment, prices, incomes, subsidies, health, education, and agriculture, and the legal system, can influence the resources for care. For example, since education for women plays such a major role in child nutrition, support for girl's education and adult education can improve human resources. Policies in governments which allocate few resources to investment in social programs or which exclude some groups from full enjoyment of rights to social services contribute to the persistence of malnutrition.

Legal actions, such as ratifying the Convention on the Rights of the Child, or the CEDAW, can also improve care. However, enforceable legislation to support these initiatives or enforcement of existing legislation are still lacking in many countries. Therefore, protection for women from domestic violence, and in marriage, divorce, and child custody cases through legislation drawing on the Conventions may improve human resources for care. Political support for caregiving can include legislation to protect women's entitlement to maternity leaves and nursing breaks. Without maternity leave, the poorer the woman, the sooner she will have to return to work. Legislation for maternity leaves must be examined carefully, however; it can result in fewer work Discrimination against women in the workplace, or unequal opportunities for women, should be avoided in order to improve care.

Energetic implementation of the International Code of Marketing of Breastmilk Substitutes has resulted in important legislative and other progress in reducing unfair commercial practices that threaten good infant feeding practices. The current global economic environment, however, poses new challenges for regulation of transnational corporations.

3.2.2. Cultural Context

Cultural factors include habits, beliefs, preferences, customs and ideas that legitimize actions in society. Malnutrition is likely to increase when these factors do not support care for women or children, or for the caregivers of children. Where men are valued more than women, or the rich are valued more than the poor, inequities will develop which undermine the goal of good nutrition for all. The low status of women, and their lack of autonomy or control of resources to make significant decisions regarding their own lives may have a detrimental effect on children's nutrition.

Changes in the status of poor men can exacerbate the problem. While employment rates for women have increased globally, employment rates for men have dropped. As men move from being autonomous small farmers to being less powerful wage earners, or even unemployed, they may attempt to maintain the traditional male role within the family by increasing their authority, or they may retreat from family responsibilities completely. Efforts to help men to find constructive new roles in the family and society may have significant benefits for both women and men.

Cultural and religious beliefs and attitudes have profound effects on many aspects of care. For example, in Cairo women's decisions about when to stop breastfeeding depend on Islamic beliefs such as preferring the end of the Islamic month to the beginning, or avoiding the month of Muharam because one is supposed to avoid conflict. Many of these beliefs are helpful to children, but not all; some, such as food restrictions, may result in increased rates of malnutrition.

Governments and the private sector should recognize that an increase in the nutritional status of their children and the improved status of women will have great benefits for the development of their countries as well as for the sustainability of the human population and the ecosystem.

3.2.3. Social Structures and Context

The social conditions of production include ownership of the means of production, the division of labor by gender, and power relationships. The low status of women in many countries has been linked to malnutrition. When women do not have access to means of production, their control of resources is limited, thus undermining the nutritional status of their children.

Urbanization has tremendous consequences for caregiving (Zeitlin & Megawangi, 1995). In the past few decades, urbanization is accelerating around the world (United Nations, 1995). Activities performed by traditional caregivers change with women's increased need to spend time outside the home and less freedom to determine schedules according to child needs. The urban environment is far less secure for children, with new risks associated with crowding, accidents, pollution, and urban violence. Opportunities may also be greater, but these will be determined by individual initiative and skills. Education may become recognized as a more important path to economic self-sufficiency, so that the need to perform in school increases. In urban areas, investments in transportation systems, in housing and sanitation infrastructure, and pollution control may improve the environment for care.

Emergencies associated with civil unrest and conflict, natural disasters and droughts endanger optimal care for nutrition. Women and children are much more likely to be refugees than men. The response to emergencies needs to include not only food and health, but also care. For example, some aid agencies are increasing their focus on finding ways to help women breastfeed, to provide them with emotional support in dealing with traumatic experiences and loss, and to empower women to develop care practices that will be effective in new circumstances. Many children are displaced in emergencies, resulting in increases in alternate care.

3.2.4. Economic Structures

Under this heading are included the economic system, governmental financial priorities, and macroeconomic policies (Jonsson, 1995). For example, structural adjustment has had a significant effect on care resources. The economic growth of many developing countries came to a halt in the early 1980s with a sudden rise in the external debt burden of these countries. The resulting structural adjustment probably affected the poor most severely, and poor women perhaps most of all. The current economic policies of removal of trade barriers and high mobility of transnational corporations to cheap labor markets seems likely to undermine workplace benefits for women and protection of breastfeeding rights. Scarcity of local employment opportunities due to multinational competition has also resulted in increased rates of men's migration to distant jobs, leaving high percentages of women as female heads of households, either *de facto* (the male household head is presumed to return) or *de jure* (there is no man associated with the household).

Overuse of environmental resources impoverishes the people who depend on the land, and increases workloads of caregivers who may be collectors of firewood or farmers. Potential resources depend on the environment (soil and climate) and the population-resource ratio, among many other factors.

Mothers were over twice as likely to want a boy as a girl in Pakistan (4.9 times more likely), Nepal (4), Bangladesh (3.3), Korea (3.3), and Syria (2.3) (UN, 1983). On the other hand they were equally likely to prefer a boy or girl in Latin America [Mexico (1.2), Peru (1.1), Costa Rica (1.0) and Venezuela (0.9)], the Caribbean (Jamaica, 0.7), and Kenya (1.1). Gender preferences can also be seen in the ratio of women per 100 men, which is greater than 100 in most of the developed countries, slightly over 100 in sub-Saharan Africa and Latin America, and below 100 in South Asia (94 in Bangladesh and India), East Asia (95 in China) and the Middle East (81 in Saudi Arabia) (UN, 1995).

Given current breastmilk intakes in developing countries and an assumed energy content of breastmilk of 0.65 kcal/g, the average amount (+/- 2 SD) of energy required from complementary foods is tentatively proposed to be 270 (75-470), 450 (230-670) and 750 (490-1000) kcal/d at ages 6-8, 9-11, and 12-23 months respectively. Data presented by Brown et al. (1996) suggest that breastfed 6 to 8 month children would need to receive only two meals per day if the energy density of their complementary foods were at least 0.93 kcal/g, even if their breastmilk intake is low. Children more than 8 months of age should receive at least three meals a day, and should receive more frequent feeds if the energy density of the diet is less than 1.22 kcal/g or they are malnourished (Brown et al., 1996). In 1970, only 37 percent of the world's population lived in cities, but it is predicted that by 2005, over 50% will live in cities. Although the percent of the population living in urban areas varies by region, from a high of almost 75% in the developed regions and South America to only 26% in Oceania, urban populations are growing in all developing regions. Rates range from a growth of 2.5 % per year in Latin America to 3.3% in North Africa, 4% in Asia and the Pacific, and 5% in sub-Saharan Africa. In some countries of sub-Saharan Africa, the urban population is doubling every decade.

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Early Childhood Counts: Programming Resources for Early Childhood Care and Development.
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