

GLOBALIZATION AND THE DISRUPTION OF MOTHERCARE¹

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INTRODUCTION

The theme of this paper, infant hunger, nutritional deprivation and its causes and consequences in the African region, has already been the urgent subject of many international statements and policy reviews by the United Nations (UN) and its specialized bodies, as well as the focus of policies and programs by many governmental and non-governmental organizations. It has also been the topic of research by scholars from several disciplines in addition to food scientists and lactation management specialists. This essay, though short and perforce modest in scope, considers and brings to bear materials from diverse disciplinary sources and time periods, with the ultimate goal of focusing more applied research attention on nursing *mother care*, its contexts and consequences.²

The major point at issue here is that Sub Saharan Africa is the only region of the world where the rates of infant malnutrition are increasing. They shifted from 25.8% in 1985 to 31.11 % in 1995. If current trends continue Sub Saharan Africa's share of the malnourished children globally is expected to rise from 19% in 1995 to 35 % by 2020 (Smith and Haddad 1999). It is estimated that some 39 million African children under age 5 will be malnourished by that time--18% more than in 1997.³ Currently, according to UNICEF statistics, ten percent of African children under 5 are estimated to suffer moderate to severe wasting. Thirty one percent are underweight and 37% suffer moderate to severe stunting. And as an African news item announced in August of this year, Africa is the lone exception to expected global decreases in child hunger. This essay sets out to highlight particular dimensions of this "silent and invisible emergency" which is still escalating and considers them in relation to various causal explanations and recent and historical evidence.

The subject is obviously crucial for the future of the region. For it is an emergency set to profoundly jeopardize human and economic development for decades to come, as malnutrition at the tender age of 6-24 months has serious, long term, ill effects on both cognitive and physical growth, which are largely irreparable.⁴ Moreover it is clear that pertinent causal mechanisms and associated processes will have to be better understood, if effective policies and programs to rectify the situation are to be successfully devised and effectively put in place. For recent analyses stress the dogged persistence of the problem, in the face of all kinds of nutrition interventions. Though much has been learned in recent decades about the incidence and consequences of infant malnutrition, implementation of nutrition programs proves time and time again to be difficult and influenced by multiple constraints (Rokx 2000). Accordingly, in spite of actions by many bodies and individuals, the consequences of the problem remain persistent and indeed devastating.

The Scale of the Tragedy

The 1998 UNICEF Report on the *State of the World's Children* detailed the global scale of the loss of infant well being and lives from malnutrition and the steps being taken. It stated that malnutrition is largely a silent and invisible emergency, exacting a terrible toll on children and their families. It noted that malnutrition plays a role in more than half of the nearly 12 million deaths each year of children under 5 in developing countries--a proportion unmatched by any infectious disease) since the Black Death ravaged Europe in the fourteenth century. It underscored the fact that survivors are left crippled--chronically

vulnerable to illness and mentally disabled. Moreover malnutrition blunts the intellect and saps the productivity and potential of entire societies⁵. The causes blamed were multiple, including “a lack of food, common and preventable infections, *inadequate care* and unsafe water.” The 1998 report did not however focus on the time lack and energy deficits and conflicting tasks of mothers, a topic which had in fact already been taken up earlier in a number of studies on female time use and a problem of women which had begun to be referred to as *the zero sum game* (McGuire and Popkin 1990).

The problem of hungry babies is not only present in rural or illiterate or poverty stricken areas. It is also found in urban, educated homes and in non-poor areas. In many countries in the region the number of malnourished children in urban areas is also increasing, not only in absolute numbers but also as a proportion of all malnourished children (Haddad et al. 1999). In the nineties strategies to reach such children were influenced by assumptions that malnutrition was located, together with urban poverty, mainly in squatter settlements and slums, in which insanitary conditions, lack of water and high incidence of child mortality and infectious diseases were common. Urban areas were expected to be highly differentiated, with spatial clustering of such attributes assumed to be linked. However recent analysis of findings from African cities has shown that this is not necessarily the case and that nutritional status of infants is highly heterogeneous within neighbourhoods,⁶ a factor which itself makes location of the problem and targeting of appropriate responses problematic.

Explanations

Many different explanations have been put forward and continue to influence the minds of policy makers and planners in the nutrition field. These explanations are clearly of great importance and need to be carefully examined, as they affect the design and development of policies, programs and perspectives. But first it should be noted at the outset that infant malnutrition has not always been endemic in the region. For historical texts have been assembled to demonstrate the apparent absence of the problem of infant and toddler malnutrition in the distant, pre-colonial past (Rijpma 1996). Secondly the FAO (1996) *Sixth World Food Survey* concluded that, although it is essential to reduce national food inadequacy in order to combat the problem of child under nutrition, there are other risk factors besides inadequate access to food, since infant hunger is found in nations and households which are not the most food insecure or deprived. Moreover while measures to eliminate general deprivation (as indicated by a low per caput GDP or HDI) may go a long way towards improving food access, there is no guarantee that it will necessarily do so. Infant malnutrition is found in countries with various levels of food security and GDP and Human Development indicators. Thirdly the broad evidence assembled indicates that poverty is not the only correlate or cause. For while income growth may be a key factor in reducing malnutrition, recent studies have confirmed that malnutrition of infants may persist, even where rapid income growth occurs (World Bank 2001a), just as it may escalate when health indicators appear to be improving (Johnson and Stout 1999: 48 on Mali). Moreover infant malnutrition is found in households in the region at all levels of wealth or asset holding, not only among the poorest of the poor. Indeed in the African region there is a markedly weak level of concentration of the underweight children under five among the poor or assetless households (Wagstaff 2000).⁷

Actually there are several dimensions of the Sub Saharan African case under discussion which make it unique. These include the fact that proportions of infants malnourished (aged 6 months to 2 years) have been rising and continue to rise even in countries where food production is also reported to be rising, and it is found in countries and households documented as having relative sufficiency of food, so it cannot be simply attributed to rising food scarcity (ACC/SCN 1989; Smith 1999).^{8 9} Furthermore it is widespread and rising even in countries with the appropriate political will, which have signed international declarations on the rights of the child. It is found to be widespread even in countries at peace not war, so it cannot only be blamed

entirely on civil strife or population dislocation. It is documented in both countries and households which are non-poor, so it cannot be attributed to poverty alone. Unlike medical treatments (vaccinations etc.) and health seeking behaviour, it is not precisely correlated with quintiles of assets and material wellbeing (World Bank 2001a). It is found in houses with water and sanitation, so it cannot only be attributed to lack of such facilities (Sommerfelt and Stewart 1994). It is found among babies who have been given medical care and vaccinated etc. (ibid). As it is not precisely correlated with health status and health care, one can improve while the other does not.¹⁶ Since affluence more readily impacts health care than nutritional status, attempts to devise single indices of maternal care which combine elements of both are doomed to weak heuristic value (Maxwell et al. 2000 on Accra). It is found among mothers with some years of schooling, (even secondary level), so girls' education is not the overall panacea some may think (ibid). It is found among babies who have not been suffering from measles or diarrhea, frequently cited as a major causal factor. Moreover marked lowering of diarrhea incidence in a whole population is not necessarily correlated with a lowering of malnutrition incidence (eg. Poskitt et al. 1999 on the Gambia). It is not only located in slums and unsanitary neighbourhoods, it is also found in well off suburbs (Haddad et al. 1999). It is not found only among babies in large families with many siblings (Desai 1992). It is found among babies who are well spaced, born two or more years apart. It is found among babies of mothers of all ages, not only teenage mothers or older mothers. It is found among children of mothers recorded to be both employed and not employed.

All this evidence, coming from recent Demographic and Health Survey (DHS) data and Household Measurement and Living Standards Surveys and medical and food and nutrition studies, shows clearly that popular stereotypes, implicating food insecurity, lack of political will or legislative framework, war, poverty, sickness, access to medical care, large family size, inadequate birth spacing, lack of knowledge etc. are insufficient as single causal factors. All these political, economic, demographic and environmental and medical factors are obviously related somewhat to the incidence. But they do not explain all the variation. We have to look elsewhere to be able to explain more of the variance, or in fact what rather appears sometimes to be an odd lack of variance.

A recent multivariate analysis of available statistical evidence by IFPRI, attempting to explain variance in child malnutrition in developing countries, has found underlying a number of determinants which appear to be among the key factors (Smith and Haddad 1999). These include: health environments; women's education; women's relative status (as indicated by female life expectancy relative to men) and per capita food availability, as well as the underlying factors, *per capita* national income and democracy. (The authors note that poverty *per se* was not assessed due to data scarcity.) They perceive the important underlying determinants, democracy and national incomes, as working through health improvements and national food availability.

As Table 1 demonstrates, most of the explanatory variables were improving globally during the quarter century prior to 1995, while the percent of underweight under fives decreased worldwide. Access to water, female secondary school enrolments, female/male life expectancy, per capita dietary energy supply (DES), and per capita incomes all improved. (Democratization appeared to be occurring until setbacks in the nineties). The quite different profile of Sub-Saharan Africa however, provides a particular conundrum. Table 2 demonstrates the differences. While child malnutrition was going up, access to safe water improved; female secondary schooling rose; per capita DES rose and democracy appeared to become more widespread. Negative trends were falling incomes, slightly rising poverty and a remarkable fall of the female/male life expectancy ratio, taken as indicating a lowering of female status relative to males. Accordingly in the case of Africa, Smith and Haddad (1999) surmise that it is

deterioration in women's relative status (life expectancy which declined since the seventies and especially after 1985) and *per capita* national incomes and household incomes, that partly explain the marked deterioration in child nutrition in the region during the period.

Table 1: Global Trends in < 5 Malnutrition (underweight) and explanatory Variables 1970 - 1995.

	1970	1975	1980	1985	1990	1995	Absolute Change 1970-95
% Population with safe access to water	30.2	45.4	52.4	60.7	69.9	70.3	40.1
% Female secondary enrolment	15.6	25.4	28.4	30.6	36.4	46.6	31.0
Female to male life expectancy ratio	1.022	1.026	1.033	1.040	1.045	1.048	.024
Per capita dietary energy supply (kilo calories)	2092	2089	2226	2380	2472	2559	467
Per capita national income \$	1011	1163	1361	1378	1673	2121	1111
Democracy (1 = least democratic)	2.85	2.99	3.75	3.31	3.24	2.71	-0.14
% underweight <5	46.5	41.6	37.8	34.3	32.3	31.0	-15.5

Source: Smith and Haddad (1999) tables 1 and 16.

They speculate that other related factors might be deterioration in the capacity and outreach of government services, under the impact of debt and structural adjustment and the rising incidence of HIV/AIDS and conflict. They find puzzling the decline in women's status (life expectancy) relative to men, hypothesizing that declines in women's relative status in the region have muted the positive impacts of the other determinants which have been improving (such as access to potable water).

Female Roles and Relative Statuses

Accordingly the conclusion of Smith and Haddad (1999) on the basis of their comprehensive statistical analysis was that, their research confirmed the now overwhelming evidence of the strong impact of women's education on children's nutrition, but in addition it also established that *women's relative status* is an important determinant of child malnutrition in all developing country regions. They noted that their findings confirmed women's key role in the etiology of child malnutrition; *whether through the pathway of maternal and child care or household food security*. Significantly they emphasized that combined, improvements in women's education and status alone, contributed to over 50% of the reduction in child malnutrition that took place in developing countries from 1970 to 1995. They accordingly underlined the fact that more emphasis should be placed on these factors in the future than has been in the past.¹¹ They finally concluded that a *more in depth*

understanding of the little studied roles of democracy and women's status are needed and that the roles of debt and structural adjustment, conflict and HIV AIDS need to be looked at more (ibid p. 63).

Table 2 : 1985 – 95 Trends in the Determinants of Child Malnutrition in Sub Saharan Africa

	1985	1995
Child Malnutrition (%)	25.8	31.1
Access to safe water (%)	33.5	48.8
Female secondary enrolment (%)	16.4	19.0
Per capita dietary energy supply*	2035	2136
Democracy	2.01	2.44
Poverty (%)	38.5 (1983)	39.1 (1993)
Per capita national income	\$830	\$778
Female to male life expectancy ratio	1.066	1.054

* DES kilocalories

Source Smith and Haddad (1999)

Data are population weighted means over all countries in the data set in the region.

The task here is to look further at the issue of women's declining relative status vis a vis males in the region, as indicated by the lowering of relative life expectancy, and to examine likely causes and correlates and potential impacts on maternal care and infant feeding, which have led to the escalation of infant hunger and malnutrition. The underlying conceptual framework and dynamic model of family and gender relations and an array of hypotheses needed to facilitate such an analysis have been initially provided by anthropological work, carried out on gender roles and population issues in the nineteen sixties and seventies in Ghana.¹² This was anthropological work which spelled out a systemic framework for examining change and lack of change in gender roles and relationships in the processes of production and reproduction in altering familial contexts.¹³ This work was followed by analyses of dynamics of gender roles in the context of economic and demographic transformation, leading to excess strain, conflict and vulnerability for working mothers and linked to changes in demographic outcomes and reproductive health.¹⁴ This earlier work now provides the basis and the models needed for examining changing gender roles in production and reproduction and infant nutrition outcomes and in particular how changes in occupational, conjugal, domestic and kin roles have been increasing womens' conflicts, stress and resource strain as nursing mothers of babies, resulting in both negative impacts for mothers' own wellbeing and their care of their babies. Sources of role strain include the diminishing help from scattered kin, including school-going children, and role conflicts engendered by simultaneous conflicting tasks in contexts of diminished opportunities for delegation or support. Accordingly the ultimate focus is on *Mother care* of infants under two, and how it appears to have been changing over time, partly as a result of other role changes ongoing.

INFANT CARE AND FEEDING

Fortunately the need to include *mother care* in causal models of infant nutritional status, is increasingly acknowledged in the pronouncements and writings of international and national organizations focusing on the problem of infant hunger and malnutrition. It has in fact recurred in

a number of major models of UNICEF and other organizations. Thus in 1987 UNICEF clearly presented a model of the factors at the household level impacting the state of children's nutrition. It stressed the crucial nature of the child's first two years, the months when growth should be rapid, energy needs are great and the period when the task of feeding the child is at its most difficult; as the child needs to be fed with loving care very often during the day and night and with nutrients suited to its digestive capabilities, in particular breast milk for the first months, even years. It is also the period when guarding against diarrheal disease is most important. In the illustrative figure in that document demands on mother's time were seen as affected by the family's productive labour needs; domestic work and responsibility; time spent collecting fuel and water etc., her time available affecting the crucial frequency and duration of baby's feeds and food intake.

Indeed health experts of the WHO are fully aware that devotion of more maternal time and energy to breast feeding more intensively and for longer durations could prevent the deaths of 1 million or more children world-wide each year. However the problem is not only inadequate access to food and clean water but inadequate child-care; not enough time and attention of over worked, tired mothers available for allocation to the crucial processes of baby nursing and weaning. And there are signs that mothers themselves feel too pained and guilt-ridden to speak out about the problem. Yet *mother care* does not appear to feature prominently enough in many current explanatory frameworks or to be well indexed or measured and there appear to be a number of problems involved in indexing and measuring of relevant variables.¹⁵

Taking up the issue of the adequacy of infant care and some possible factors linked to its variation and change, involves considering: lactating mothers' ability to respond effectively to the demands of motherhood, in the context of other demands made upon them as housewives, workers and so on (*role conflict*); the effectiveness of maternal responses to infants' nutritional needs and possible constraints inhibiting the required care responses (*role strain and coping—availability of required resources*); as well as the effectiveness of *social support* provided by spouses, kin and community (see Oppong 1980; Oppong and Abu 1985; 1987). The need for such a framework taking into account social support and role conflicts has been demonstrated by the recent findings from studies of infant feeding in Mali, which have shown the crucial nature of assistance from grandmothers and daughters and the potential negative effects of too heavy work demands on nursing mothers (Castle et al. 2001).

Breast is Best

It is a sad irony that scientific evidence on the importance of breast feeding to babies and their mothers has been rapidly accumulating, just at a point in history when lactation has endured a period of serious decline. Current and recent medical scholarship provides a mass of weighty evidence of diverse kinds on the need for exclusive and extended breast feeding, if infants are to thrive and reach their full human potential. The benefits both psychic and somatic have been summarised recently on the basis of analyses from the Demographic and Health Surveys (DHS) (Haggerty and Rutstein 1999: xiii).¹⁶ The evidence amassed clearly underlines the fact that breast feeding needs to be revalued and ways found to facilitate its prioritization globally in mothers' time schedules. One thing which appears clear and well documented from around the globe, is that breast feeding requires solidarity and cooperation at the household level from spouses, kin and older children (Raphael and Davis 1984). New mothers need financial and social support, advice and help with household tasks, as well as infant care. Critically they also need flexibility and lightening of their own occupational and domestic schedules in the crucial pre and post birth periods, if low birth weight is to be avoided and suckling established and supported. Data on such potentially critical processes and resources is sadly lacking in the major sources of evidence on breast feeding.

Adequacy of Maternal Care: Inadequacy of the Evidence

In spite of the eloquence of global and regional overviews and policy statements and national assessments, maternal nursing and infant nutrition, and in particular failure to care adequately and failure to thrive on the part of infants, is relatively understudied, in this region and elsewhere; in view of its tremendous importance to human and economic development and considering the vast outpouring of literature on women and gender roles in recent years.¹⁷ The lack of comparative studies is not only a consequence of the absence of will or interest, it is also partly a result of the lack of appropriate measuring devices and conceptual frameworks, needed to capture the dimensions of the mother infant interactions and the socio-cultural, economic and demographic contexts within which they occur. More specifically the development of schemas to categorize and compare both breast feeding and women's work have only recently been developed.¹⁸ Meanwhile there has often been a marked reluctance to adopt frameworks which specifically include and deconstruct the several different roles which women may from time to time play and which as we have noted, potentially facilitate the assessment of role conflict, strain, harmony and tension.¹⁹ Furthermore there has been a marked *gender of the data*, whereby there has in the past been more information in large scale studies on labour for men and more on reproduction and contraception for women, and a widespread failure, for either female or male subjects, to design studies which capture the ways in which these two processes interact at the individual level. There is evidence available however, pertinent to our subject from a range of sources, which can be pieced together. During the recent past there are the demographic analyses and anthropological accounts, which on the one hand provide the paradigms of the moral order of sexual constraint and familial support and protection to new mothers and their young in traditional African families; and on the other hand provide evidence of change and reproductive problems, in terms of the breakdown of sex and birth spacing rules and occurrence of births outside supportive familial contexts (Lesthaeghe ed. 1989; Page and Lesthaeghe eds. 1981). Then there are reports by health professionals and nutrition experts from the colonial and post colonial periods. Their evidence often proves to be supportive of the view that constraints, conflicts and changes in mother care are critical to the incidence of infant malnutrition and these are often linked to such phenomena as labour migration, divisions of household labour etc. (eg. Bantje 1995). These reports include medical and nutritional studies, demographic survey data and analyses and ethnographic accounts, from selected time periods and a variety of socio-cultural locations (eg. Morely, Bickness and Woodland 1968).

The Demographic and Health Survey (DHS) findings show that African mothers generally undertake extended periods of breast feeding, but that **exclusive** breast feeding is typically of very short duration indeed—contrary to the advice on best practice. However these survey data are unfortunately basically unable to tell us much about women's other role resources and demands (occupational, conjugal, domestic, kin etc.) and how they appear to affect breast feeding, due to the nature of their design.²⁰ If we want to look at changes which have been occurring over time, we may have to look more closely at case studies as well as statistics.

Child Care as Labour Process

Infant and toddler care and feeding is clearly required on a continuous basis, because infants cannot fend for themselves to obtain the nutrients they need.²¹ Such care is of necessity very intensive and requires considerable time and attention, throughout the day and night, for babies need feeding every two or three hours or so.²² It is thus not entirely surprising to discover that levels of malnutrition of babies are most serious from 6-24 months; the period when they are no longer new borns and not yet able to obtain food for themselves, from whatever is available in their environment. Meanwhile at that time their potential growth rate, especially of vital organs such as the brain, is high. In addition there is the absolute requirement that somebody must be there to attend to their needs as they occur. Furthermore such needs change rapidly as the baby

grows into a toddler, and have ideally to be continually reassessed, so that the response can be optimal and appropriate to the need.²³ It is not surprising that skills required to do this are accounted to be of a high level, involving resource management, interpersonal skills, communication and intellectual and supervisory skills (Gardiner 1997). Last but not least, positive affect/love is needed, as well as maternal confidence. Without love, effective emotional attachment and psycho-social stimulation, babies become anorexic, wither, suffer damage and in the most extreme cases may die.

Systemic Perspectives

In the seventies infant feeding and care began to be perceived and discussed in an interdisciplinary way and as a socio-biological and ecological system, involving not only the mother infant dyad, but also including the rest of the family members (in the domestic group and descent group) and the community. Indeed it began to be viewed as a universal issue, with a number of dimensions, including social, psychological and cultural, linked to global, economic and demographic transformations and as a process in the context of human development.²⁴

The perspective adopted here, following Brofenbrenner (1979) and others, is that infant feeding patterns are affected by the state of their ecological niche, which is in turn partly a product of transformations occurring in the macro political and economic context of the world system, both historical and contemporary, including colonialism and structural adjustment, neo-colonialism and globalization processes, as well as the micro context of the residential group. The economic and demographic transformations engendered involve massive dislocation of people, through labour migration for elusive paid jobs and rapid urbanization, dispersal of kin, distortion of sex ratios, and destabilization of traditional, family based enterprises, as well as erosion of customary, familial solidarity and security and increasing divergence in wealth and opportunities.

The household level processes include changes in the composition of co-residential domestic groups, including more homes bereft of fathers and husbands; alterations in the household allocation of labour—often more work for women alone; changes in access to resources and power bases which may involve less for women and children in the midst of equality rhetoric; and most crucially, the break down of the moral orders underpinning systems of kinship and marriage, which had for so long constrained sexual relations and ordered the sequence of pregnancies, protecting and supporting the parturient and lactating mother. The crux of the matter is rapidly and profoundly altering gender roles and relations, affecting the demands upon mothers and the supports and protection available to them for reproduction and infant nursing from adults and children, male and female (husbands, mothers, aunts, cousins, daughters, sons, nephews and nieces).

Altering Patterns of Infant Care

Historical and comparative analysis has underlined the fact that it has been usual for infant care to be shared and delegated among close, supportive, female kin and affines, and this is what the ethnographic accounts have reported from many traditional African societies in both the colonial and post colonial periods; while husbands and male kin should play a crucial protective and supportive part. For example Levine et al. (1994) note that it used to be customary for Gusii mothers in Kenya to return to work in the second year of the baby's life—women worked in fields and men with cattle and after this transition of the mother to the farm, responsibilities for care of the baby were shared in substantial degree with older siblings, a very typical African pattern of sibling caretaking (Weisner and Gallimore 1977). New mothers were given time and secluded space to concentrate on the needs of the newborn. In some societies, such as the traditional kingdom of Dagbon, Northern Ghana, new mothers have in the past customarily returned to their natal home for a time, to concentrate on infant care, while they themselves are

also mothered, until the infant is grown and walking (Oppong 1973). Such practices, combined with overseeing of the new mother's activities and relations with the husband, clearly prevents the already born infant, who is suckling at the breast, from being superseded and dethroned from its place of attention by another closely spaced birth. It gives the infant's needs precedence over the father's sexual desires and enjoyment of the mother's more or less undivided attention.²⁵ Now school attendance for most boys and girls from 6 or 7 years means that there are only preschoolers or no one at all left to carry and look after the baby when the mother is working in farm, market or elsewhere.²⁶ The babies as a consequence may suffer death, anorexia and wasting away.

Comparative Historical Evidence of Failure to Care

Actually taking a broad comparative and historical view, it is in fact culturally rare, both for people to specialize in domestic childcare and for domestic childcare to be the responsibility of isolated individuals/mothers (Gardiner 1997). Studies carried out in many different locations and decades have discovered levels of conflict, stress and depression, when mothers are expected to cope alone with several different sets of demands, as well as child care (conjugal, occupational, domestic). Significantly female depression in the child bearing years is globally on the increase and is the first and most serious cause of disease burden, for women aged 15-44 (1990) in the developing (and developed) world (Murray and Lopez eds. 1996).²⁷ One could surmise that maternal role conflict, a result of too many demands on energy and time and stress and strain, exacerbated by lack of material resources and social support, are deeply implicated in an important proportion of cases.

In Sub Saharan Africa and elsewhere economic and demographic change processes have for some time been perceived as potentially jeopardising infant care and feeding practices, through altering gender roles and relations— of husbands and wives, siblings, parents and children and wider kin. This is not a new perspective. It is evident from a number of sources that macro economic and demographic processes, involving migrant wage labour have for some time been bringing about irrevocable changes in parenthood and family life in the region. The early writings of Audrey Richards (1939) among others, on the Bemba, copiously documented such processes more than half a century ago, linking hunger with labour migration, altering work locations and domestic constraints. And for several decades anthropologists have been noting that changes in sexual divisions of labour have been leading to diversion of time and energy from children to productive labour and the consequent deprivation of infants and changes in mother care (eg. Levine 1966). In addition there have been changes associated with commoditizing food and medicalizing infant births, and health.

In the seventies escalating infant nutrition problems, even child survival, began to be widely associated by health experts with altering patterns of infant feeding.²⁸ Babies' hunger and toddlers' malnutrition, the outcomes of inadequate nursing and weaning, were recognized to be issues of gigantic and growing proportions, with a historical record to be explored and regional differences to be understood (Jelliffe and Jelliffe 1978). Bottles of cows' milk of various kinds, often shipped from the North to the South, were viewed as part of the problem.

Meanwhile various writers have documented the dislocations of parenthood occurring in contexts of exploitation, pauperization and urbanization.²⁹ In the eighties Van Esterik (1989: 55-58) described how the globalizing, capitalist economy was using women's cheap labour in developing countries of Africa and elsewhere at the expense of their reproductive functions; sacking them on pregnancy, with no possibility of maternity leave benefits or lactation breaks. A four country study of infant feeding by Winnikoff et al. (1988) had shown that there are multiple determinants of duration of breast feeding, and that conditions

of mothers' work and distance from work are very important. Indeed mother's work load has been statistically demonstrated to be strongly associated with the early initiation of complementary feeding; a point which Nerlove (1974) made earlier, with evidence on maternal contribution to subsistence from numerous pre-industrial societies. This work called attention to the need to rethink *work* from a feminist perspective, since it has different dimensions and is so difficult to evaluate and measure (Van Esterik 1990).³⁰ In fact a number of detailed historical studies from various countries have demonstrated the immediate effects of mothers' work demands on failure to breast feed and or wean adequately, and consequently on infant mortality and fertility (eg. Lithell 1981). Surprisingly however by the end of the eighties Leslie and Paolisso (eds.1989) indicated that while some interesting studies had been undertaken in the South the subject was surprisingly comparatively under studied.

Maternal Coping and Infant Outcomes: Colonial Examples

In the African region there were a number of small scale, clinical studies, carried out in the colonial era, which have examined the well being and nutritional status or pattern of growth of infants and toddlers in the light of their maternal care or family situation, highlighting factors which appear to be linked to excess infant vulnerability. Williams, a lady physician working among the Ga in Accra, was a significant pioneer in treating and documenting infant malnutrition. She used the Ga term *kwashiorkor*, meaning sickness the older child gets when the next baby is born too soon. (See Williams 1933; 1935; 1938; 1962). The term became part of the nutritional and medical lexicon. Now *kwashiorkor* and *marasmus* are viewed as different syndromes of protein caloric malnutrition.

Observations from a number of Medical Officers from the colonial era provide examples of differential maternal care and its immediate outcomes and the importance of effective maternal attachment and breast feeding (eg. Welbourn 1955; Morely et al. 1968). Evidence comes from The Gambia where there has been a medical research project in existence with external financial support for half a century. (See McGregor et al. 1961.)

Major causes of high mortality and faltering growth in young children were thought to be infection and poor care by overworked, farming mothers. Examples like these give crucial evidence from the colonial and post colonial eras, indicating linkages between changing maternal roles and infant outcomes, in the context of labour migration, changing divisions of labour between mothers and others, affecting intensity of effort required and demands upon mothers' energy and time and the supports available to her in her tasks of reproduction and production. What we now briefly consider is why the situation for mothers and their babies seems to have deteriorated so rapidly in recent years, to such an extent that relative female life expectancy has gone down and infant malnutrition has gone up (even in countries not so far devastated by the ravages of HIV/AIDS).

GLOBALIZATION, STRUCTURAL ADJUSTMENT AND THE SPEED OF CHANGE

There are those who are for, and those who are against, globalization. Some view it as the march of international capitalism, a force for oppression, exploitation and injustice. Others view it as economic integration and a force for good and the only feasible cure for poverty (Crook 2001). What is certain is that there are painful social and economic dislocations involved, and these have been likened to those involved in the Industrial Revolution in Europe—probably an apt comparison in this context, as that revolution certainly took its toll of malnutrition and death on the babies of working women.³¹ In the same way there have been proponents of the good (World Bank 1994) and the bad effects of the Structural Adjustment Programs, which have been put in place in a number of African countries. Exponents of the latter have been many. They have highlighted harsh realities (Blandford et al. 1994); the deleterious impact on women's food farming;³² the associated impoverishment (Berry et al. 1997); the human suffering (Comia et al.

eds. 1987); the policy failures (Sahn ed. 1994); and the severe consequences for women in particular (eg. Ashfar and Dennis eds. 1992; Baden 1993; Bakker ed. 1993). At the same time, if we are considering the deteriorating economic conditions experienced by the mass of the people in many African countries, we have to take into account the effects of the less than good governance in many cases, political instabilities of various kinds and the widespread opening up of avenues for exploitation and corruption by both local and external bodies in the name of development.

Major consequences for populations at the local level of the market forces and global changes and national policies and practices have included massive dislocation of people and in depth inroads of the cash economy. People feel increasingly compelled to migrate to earn, to support themselves and any dependents they are willing or able to maintain. Massive waves of labour migration have been occurring region wide, changing direction from one period to the next as opportunities for wage work alter, in the wake of economic progress or stagnation. Populations have moved from rural to rural, rural to urban areas and an increasing number of job seekers have been leaving the region altogether, to pursue their *greener pasture* survival strategies in different parts of the globe, with a range of implications, positive and negative for family members left behind. Men, women and children have been moving to urban areas with unprecedented rapidity, making Sub Saharan African cities some of the most rapidly growing in the world.

Systems of agricultural subsistence production and labour markets have also been changing quickly. Many more people are landless, in insecure, daily rated jobs, paid below the poverty line, labouring longer and harder often at more than one job, to earn less. The position of the labouring poor has radically worsened. The power of workers' organizations has been weakened, as has the capacity of states to promote or enforce labour standards or to collect taxes to fund welfare programs. Meanwhile health, social services and education programs have been cut back, just as populations are reaping the results of high fertility, lowering mortality and the consequent doubling of populations in two decades.

In the context of these profoundly disturbing and dislocating economic and demographic change processes, traditional sources of familial and individual sustenance are rapidly dwindling. Modern, as well as customary, social supports and safety nets are being put at risk, as descent group/extended family solidarity declines through dispersal of kin and growing inequalities. Meanwhile fragile national social security systems falter and collapse. Numbers of homeless and destitute are rising. Disputed gender roles in marriage and the family are common, often involving conflict (Narayan and Petesch 2002) Hopes that market forces would deal with social problems and promote human development have not materialized. The gaps between the haves and have nots at the national and community levels are escalating fast.

Gendered Impacts

A growing proportion of wage workers have for some time been women (Standing 1989). There has been both a *feminization of labour* and a *feminization of poverty* (United Nations 1995). By and large it is the impoverished, including more females than males, who maintain and care for the majority of the babies and young children as well as the sick. This pattern is found at the global, regional, national and household levels, as is the trend of increasing disparity between males and females, in both resources and reproductive effort and responsibilities. In addition a negative fact for mothers is that there has been a marked downturn of state employment and welfare policies and programs ensuring minimal standards of human development and social protection, as countries have been compelled under the duress of World Bank and IMF policy pressures, to *adjust economics*: to export surpluses and pay debts accumulated under earlier regimes; to get rid of regulations protecting labour; to sell off public

enterprises and assets and to cut back state expenditures on health, education and public welfare. Such policies have aggravated hardships for the poor. The bulk of the latter are children and those seeking to care for and maintain them, mainly women.

In the nineties a number of feminists noted there had been widespread failure to recognise that economic restructuring at all levels was occurring on a gendered terrain (Bakker 1993). Yet gender—culturally prescribed sexual divisions of labour, resources and responsibilities is a highly significant factor in the economic adjustment of African economies, both in terms of the impacts of gender factors on the effectiveness of market reform policies and in terms of differential impacts of reforms on women and men—the demands made upon them and the rewards for labour which accrue to them (Palmer 1991). The point here is that social reproduction is also heavily gendered and is currently facing increasing jeopardy.

The migration process itself is shaped in multiple ways by the dynamics of gender relations. Flowing streams of labour migration by females and males remain a key factor dispersing kin, splitting spouses and separating parents and children. The resulting individualism, dwindling of kin controls, community constraints and sanctions on sexual behaviour, conjugal contracts and parental responsibilities, have resulted in more frequent marital splits and divorces, greater domestic instability, more births occurring outside caring kin contexts, more conceptions to unaided, partnerless girls and women, and consequently escalating cases of maternal inability to cope with infant needs. Not only are more and more girls and women migrating for work within their own countries and internationally, they are also increasingly moving either into paid employment or various types of economic survival strategies, trading, home production etc, through part or all of their life cycles. Their mobility is partly a response to the inadequacy or breakdown of sources of kin and conjugal sustenance and security and opportunities for livelihoods in their home communities. Where male out migration is the pattern there is evidence of sex ratio imbalances among teenagers and young adults in many rural areas, with serious implications for marriage choices and opportunities and parenting, as well as intensity of labour effort required. The numbers and proportions of households maintained by mothers alone, without the husbands/fathers of their children, has increased throughout the region and has reached substantial levels in a number of countries. The widespread *feminisation of poverty* is linked to these increases. Profound changes are taking place in male roles vis a vis partners and offspring, gender roles and relations are being deeply disrupted and linked to the escalating levels of potential child deprivation.³¹

Escalating Female Work Burdens

Meanwhile according to UN Statistics (United Nations 1995) women generally work longer hours than men in all regions and the number of hours they work outside the home is increasing.³⁴ The female share of the documented wage labour force has been rising, in contrast to that of men, which has been falling. Sub Saharan Africa is no exception to this trend. However measurement and recording difficulties hamper a true assessment of the extent of the rise and the excess in this region (eg. Anker 1994).³⁵ A stumbling block is the widespread under recording of women's work. Often women's work in agriculture is perceived as part of her role as dutiful wife and mother, providing food for her family (e.g. Whitehead 1994 on Ghana). The hours females as well as males work and the intensity of labour is often a function of their position in the class and family structure, long hours and hard labour reflecting lack of assets, poor conjugal and kin support and consequent insecurity. But in addition their subsistence and domestic work burdens are among the heaviest, because of the lack of basic domestic amenities (such as electricity or other household fuel). Meanwhile as household wood fuel use is even increasing, access is constrained by drought and environmental degradation (United Nations 1995). Household subsistence work also goes mainly unaccounted and unvalued. Yet it absorbs a large proportion of women's time and energy, and plays a significant part in ensuring family survival and subsistence (Goldschmidt Clermont 1987; 1994).³⁶ There are signs that the burdens

of such work have been aggravated by environmental degradation, worsening access to fuel, farming land and water (eg. Cecelski 1987; Ardeyfo Schaandorf 1993). At the same time fertility rates remain among the highest in the world; the need for child assistance providing a continuing support for high fertility aspirations; the lack of real access to modern contraceptives and break down of traditional abstinence mechanisms, effectively constraining attempts at family planning, leaving abortion sometimes as a method of last resort.

Whether on or off farms, the majority are self employed or in family enterprises as unpaid labour, although increasing numbers are insecure daily rated labourers. Work is more and more situated far away from home, from spouses, from children and kin. This is having profound repercussions on conjugal and parental relations and deeply affecting the kinds of cooperation usual between wives and husbands on farms. In cases where males have migrated in greater numbers away from rural areas, the proportions of rural households with no male labour are escalating, with consequent impacts on women's work loads and an observed *feminisation of agriculture*. The loss of soil fertility, the introduction of cash crops, the dispersal of kin groups and wide spread ecological changes have also made women's agricultural tasks harder, increasing the intensity of effort required. Improvements in data collection methods are providing new insights into the allocations of female and male labour on farms. Cultivators and agricultural labourers often comprise the bulk of women workers. Many work on plantations, where they are likely to perform the most arduous and menial jobs in difficult conditions.

Disadvantages and discrimination faced by women in wage labour markets, as well as the weight of their family responsibilities, force them to accept less secure, less well paid jobs, involving more intense labour, longer hours and inadequate rest. Women and girls are more often in temporary, casual, part-time jobs, homeworking and subcontracting, in putting out systems and self employment in petty enterprises in the informal sector, unprotected by labour laws and regulations, which would limit their hours of work, weights lifted, unhealthy conditions and provide maternity protection etc. What is more, many are doing several jobs to ensure survival of themselves, their children and other family members.³⁷ In some cases in the retrenchment programs affecting government employees, part of Structural Adjustment packages, have often meant that hundreds of women, including teachers and nurses, part of the small formal sector, have had to move into the informal sector. The result for women is generally longer hours of harder and more precarious work to maintain their families.

The Productive/Reproductive Squeeze

While there have been widespread pressures to increase the numbers of hours worked outside the home for wages or subsistence, there has been no diminution of women's responsibility for child care and domestic work. Rather their responsibilities have tended to grow as their customary sources of support, help and cooperation are no longer available (children are in school, female kin are employed or scattered far away men are more often working far away or absent). The result is that women's choices regarding allocation of their time and energy to child-care or paid or unpaid work of various kinds are in many cases becoming even more constrained, stressful, and conflict prone, leading to concern for a *productive reproductive squeeze* (eg. Whitehead 1996). For rates of conception and pregnancy continue high, in comparison with most other parts of the world, though there is some evidence of a downturn in the very high fertility rates. It is often highest of all for those who lack both traditional as well as modern means to space births.³⁸

Not only is women's work to maintain households increasing but there is a comparative and growing lack of inputs of men into child rearing activities. Furthermore in increasing numbers of cases men's inputs into financial maintenance of children are dwindling, because of

unemployment, ridiculously low minimum wages (such as \$1 or \$2) or lack of minimum wages and also because of males renegeing on paternal responsibilities and the increasing spread of "free-riding" in terms of child maintenance and care. There is global evidence that family care is increasingly inadequate and that less time is being devoted to infants (WHO 1995: 41). The problems associated with inadequacy of maternal care and infant feeding are partly due to a serious question of *time poverty* (McGuire and Popkin 1990). A *parenting deficit* is becoming a world-wide subject of urgent policy concern and sociological attention and leading to calls for comprehensive policy formulation on gender roles and the family (Etzioni 1993). We would argue that a major manifestation of the parenting deficit in the Sub Saharan African region appears to be the pervasive infant nutrition levels indicated, when they occur in households and communities which are at peace and among the non poor.³⁹

Gender Roles: Stress, Strain and Conflict

As is becoming increasingly clear, the mother's role and her responsibilities, resources and relationships (conjugal, domestic, occupational, kin et al.) need to be viewed in the context of local and global escalating demands and pressures, which reduce and put in jeopardy her maternal caring capacity. Her levels of resource strain and stress need to be taken into account. Women in Africa and elsewhere have for some time been viewed as being involved in a zero sum game—a closed system in which time or energy devoted to any new effort must be diverted from their other activities or roles (McGuire and Popkin 1990). Women's time is finite and its scarcity impacts on their ability to engage in particular activities. Studies of energy expenditure and body mass indices have shown how women often tend to spend a relatively higher proportion of their time than men performing physically demanding tasks with relatively less leisure time, due mainly to their central role in agricultural production and distribution and a lack of labor saving devices (eg. Higgins and Alderman 1993 on Ghana). Moreover marked seasonal swings in energy expenditure, as well as in body weight and composition and food availability, have also been documented especially in rural areas among female farmers.

At the same time there is need for acute awareness of the potentially deleterious effects of female role conflicts, stresses and strains on mothers' own mental and physical health status; the impacts of the contradictions in the responsibilities and expectations which they face; the effects of the discriminations they encounter in workplaces, public spaces and living areas and the burden of fatigue, which overwhelms them, from trying to do too many things at the same time. In the wake of global assessments, highlighting the burden of psychiatric disease on females in their reproductive years psychiatry and medicine are beginning to take seriously the socio-economic and cultural dimensions of their sicknesses, realizing they may be the result of role conflicts, resource strains and stresses engendered by feelings of guilt etc.⁴⁰ Child rearing itself when unsupported is realized to be a source of serious strain. However there is still a dearth of studies which combine economic, demographic and psycho-social characteristics of women's roles, in particular stress and strain, to identify those most at risk of physical or mental relapse or breakdown (Russo 1990) and in particular inability to cope successfully with infant care needs. Maternal confidence and coping behaviour on the one hand and depression and inability to cope on the other feature in medical models of care and provide a key link between socio-cultural and demographic studies and psycho-medical research.

Women's Voices

A number of recent writings on women have tried to give a louder voice to women themselves, farmers, teachers, traders. These accounts have revealed the kinds of bitterness, frustration, guilt and anger seething in women, as they try, with varying degrees of success, to cope with their multiple and escalating burdens. A study in the Volta region in Southern Ghana for example, designed to document women's health problems, discovered

incidentally that women's greatest concern was the ways in which their workloads were detrimental to their health, both psychic and somatic (Avotri and Walters 1999). Load carrying, as well as draining energy, could prevent a mother from carrying her baby. And as Mbilinyi (1996) records on the bitterness of Tanzanian women, "Cultivating by hand with a baby on your back--that is a problem"

Family Conflicts

Not only are resources squeezed and time and money scarce, but there is evidence from many sources that family conflicts, even violence, are rife: between husbands and wives and parents and children.⁴¹ It has long been known from diverse settings that economic hard times, including unemployment and social dislocation, can have adverse consequences for families: increasing risks of divorce and separation; domestic disorganization; violence and discord.⁴² There has no doubt been an enormous upheaval in domestic and other kinship-based relations between the sexes. These changes are producing considerable conflict and in some cases it is hardly an exaggeration to say that this amounts to a sex war, which is often exacerbated by development planning and projects (Whitehead 1990: 58). Moreover there is rising male anxiety regarding the dislocation of gender relations and changes taking place in women's and men's roles (ibid. and see also Silberschmidt 1999 on Kenya). An account of how women's groups in Cameroon reacted to Structural Adjustment Programs (SAPs) illustrates the multiplicity and nature of the impacts born, the escalating work burdens, the trekking with heavy weights over longer distances; the dependence on daughters; the lack of rest or leisure (Fonchingong 1999). We clearly have evidence here of changes which are likely to be contributing both to the shortening of women's lives and the escalation of infant hunger and malnutrition.

Human Development and the Deficit of Care

In 1999 (UNDP) the *Human Development Report* focused global attention on this less visible impact of globalization considered here—its impact on caring work. It stressed that a deficit of care not only destroys human development, it also undermines economic growth. In other words all the unpaid family work of women, caring for infants, toddlers and other family members is totally indispensable for family survival. Care, sometimes referred to as *social reproduction*, is also essential for economic sustainability (UNDP 1999: 77). The report went on to admit that globalization is putting a squeeze on care and caring labour; that changes in the way that men and women use their time put a squeeze on the time available for care. Moreover the report emphasized that gender is a major factor in all these impacts, because women the world over carry the main responsibility for these activities, and most of the burden (UNDP 1999: 77). Accordingly the report recognized the fundamental part played by care in human capabilities and development, and the fact that children cannot develop their capabilities without genuine care and nurturing. This is a fact by now recognized by UNICEF in its analyses of child well being. Caring is the third underlying factor in its model of preventing child malnutrition—after household food security and sanitation facilities. The UNDP (1999) report went on to note that infants' risks of malnutrition and illness depend significantly on whether a child is breast fed and how long and at what age it is given complementary foods and whether it receives immunization on schedule. In addition the report recalled that many studies show that malnourished children grow faster when they receive verbal and cognitive stimulation—special attention can encourage a child in pain to eat (UNDP 1999: 77-78).

Caring labour is recognized as being mainly performed by women, unpaid and undocumented. *The Human Development Report* of 1995 had estimated that women spend two thirds of their working hours on such unpaid work (men one quarter) and most of

those hours are for what the HDR now describes as caring work, that is *social reproduction*. Caring involves love, altruism and social obligation, mainly in family settings. Economic analysis of care in the HDR offers three insights into the impact of globalization on human development. They are first that women's increased participation in the labour force and changes in economic structures mean that needs once provided for through unpaid family labour are increasingly purchased from the market or provided by the state (eg. creches for infants and toddlers); second that as the size and scope of market transactions increases and families become less stable (economically and demographically) reliance on families for emotional support is increasing, and third that people and institutions have been free riding on care provided by women, but whether they will continue to provide it is in doubt.

Furthermore state and private employers are not paying fathers enough to cover the costs of social reproduction, so that women can afford to chose unpaid *social reproduction*. The price is being paid by infants and toddlers, whose mothers have to work so hard they cannot respond to their infants' needs for frequent feeding and loving care. Women's work in the paid sector is increasing, but their work in the unpaid sector is also not decreasing. Malnutrition gives us serious evidence of reproductive work not done. Many mothers are painfully and guiltily aware of this.⁴³

Responses: Programs, Policies and the Gendering of Development Economics

The manifest shortcomings of "structural adjustment programs" and the criticisms of the World Bank advisers and IMF have resulted in some apparent concern at the global level, following the lead of several United Nations agencies, and international non-governmental organisations, to take more seriously into account human development objectives and the relevance of "gender issues". However if the dimensions of the gender issues are not sufficiently spelled out we may find that the pleas to increase women's work loads only multiply yet further and reproduction continues to be sidelined and to be viewed as a barrier to women's greater economic efficiency!- a pervasive perspective of many gender and development writings of the past decade.

An approach which incorporates the centrality of care will contribute to the emerging field of feminist economics. For as Folbre (1992: xxiv) prophesied a decade ago, such a discipline includes among its desirable attributes taking into account traditionally unpriced goods vital to sustainable human development, such as the "health and happiness of children". It also involves acknowledging the key importance of non-market production. Moreover as she stressed, it involves recognizing the cross cultural and inter personal complexity and differences in gender roles and domestic organization. And global comparisons are relevant here in a globalizing world in which parents everywhere are more and more oppressed by market forces, being compelled to work harder and harder to ensure survival or status maintenance.⁴⁴

Conclusion

The focus of this essay has been the issue of adequacy of maternal care during the breast feeding and weaning phases of 0-24 months. Factors affecting maternal coping skills and resources and social support have been examined. Historical and contemporary case studies have been cited. A major aim of the paper is to motivate new scholars to direct their efforts to relevant multidisciplinary research, which sets mothers and infants in the centre and examines their developing relationship and infant feeding and growth in the context of mothers' (and other carers) changing roles and resources, which in turn are affected by domestic arrangements; available support from spouses and kin; labour demands etc. Underlying these discussions is the evidence that African mothers' work burdens and constraints are increasing more rapidly now, just at a time when many of their traditional kin and conjugal supports are dwindling.⁴⁵

It is accordingly the thesis of this essay that widespread disruptions in mothers' care of infants have occurred and are seriously implicated in the plight of the hungry infants. Such disruptions are viewed as part of the wider disruption of gender roles and relations occurring in the processes of reproduction and production.⁴⁶ These have been occurring as the result of economic and demographic transformations since colonial times and have been variously documented and discussed both in the region and globally (eg. Hodgson and McCurdy eds. 2001; Fukuyama 1999). Whereas Boserup (1970) drew attention to the ways in which such alterations were putting women's productive role in jeopardy, the focus in this essay has been the risks involved for mothering and for babies.

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Notes

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This is an abbreviated version of a longer work. The expanded version will appear in the Occasional Research Papers 2000 series of the Institute of African Studies.

² It has been taken up in earlier papers and is the subject of a larger ongoing work (Oppong 1991; 1999; 2000 and in progress (a)).

³ Researchers at IFPRI Washington used a computer model to make projections based on a scenario in which governments make no major policy changes and populations grow at rates forecast by the United Nations.

⁴ Grantham McGregor S.M., W. Schofield and C. Powell (1987) and other studies have indicated the kinds of remedial work which have to be done to counteract even the psychological impacts.

⁵ Severe protein energy malnutrition in children affects their intellectual as well as physical development for many years and requires psychosocial stimulation, as well as adequate nutrients to prevent serious decline (Grantham McGregor et al. 1987).

⁶ Eg. Morris et al. (1999) on Abidjan and Accra.

⁷ See Figure 4 p. 12 in Wagstaff (2000). See also the recent series of 44 World Bank country studies of Socio-Economic Differences in Health, Nutrition and Population eg. Davidson et al. (2000) *Ghana*. The figures presented in the series have been tabulated from data collected through the multi-country Demographic and Health Survey (DHS) program. An asset index was developed dividing the population into quintiles on the basis of visible aspects of wealth, ownership of consumer items and dwelling characteristics, such as water source and toilet facilities. Household assets were assigned weights. Asset scores were standardised.

⁸ Such countries include Mauritania, Nigeria, Ghana, Lesotho, Mali, Uganda. (NB. The careful wording of this sentence. Food production *is reported* to be rising!)

⁹ The FAO (1996:83) *Sixth Food Survey* concluded on the basis of analysis of data from developing countries that overall food deprivation and poor nutritional status (of under fives) go together to some degree, but there are many exceptions to this trend. Two out of five countries with a high degree of food deprivation had only moderate prevalence of weight deficiency, while one in ten countries with a low degree of food deprivation had a high prevalence of weight deficiency.

¹⁰ See for example the case of Mali described in Johnson and Stout (1999: 48) in which improvements in infant mortality and take up of health measures has not been matched by malnutrition indices for stunting, wasting and under nourishment which have markedly deteriorated from 1987 to 1996.

¹¹ For Sub Saharan Africa and South Asia—the regions with the highest child malnutrition rates—the authors identified per capita food availability and women's education as two areas which seemed to be priority for future reduction in child malnutrition. This is somewhat surprising as these *two indicators rose in Africa while under-nutrition increased*.

¹² See Oppong (in progress (b)).

¹³ See Oppong (1980); Oppong and Abu (1985; 1987).

¹⁴ See Oppong and Abu (1987) and Oppong and Wery (1994).

¹⁵ See the recent attempt in Maxwell et al. (2000) to devise an index of care comprising different health and maternal variables.

¹⁶ Research progress in this field was difficult until breast feeding definitions and categories had been established and recognized (WHO 1991). WHO and UNICEF have defined the most important elements of infant feeding practices. See UNICEF (1990); World Health Assembly (WHA) (1994); WHO/UNICEF (1990). They include: initiation of breast feeding within one hour of birth; frequent on demand feeding (including night feeds); exclusive breast feeding (breast milk only –no other liquids or foods consumed); breastfeeding complemented with locally available and hygienically prepared appropriate foods from the age of around six months; increased breastfeeding during illness and recovery; continued breast feeding for up to two years or beyond, while also giving nutritionally adequate and safe complementary foods.

¹⁷ For example in the case of the United Kingdom Gardiner (1997) notes that for three decades of the last century domestic childcare was neglected by socio-economic research and remained a taken for granted unknown domain. Caring for dependent adults and disabled children got more attention. The relative neglect of parenting by feminist researchers in that country has been partly attributed to pressure on feminist academics to remain silent about motherhood. Meanwhile the British official definition of “carers” also adopted in the academic literature actually excludes people involved in caring for healthy able-bodied children; an approach contrasted with the Scandinavian one in which care is used to include the work involved in looking after all dependants including children. This semantic difference reflects the very different national policies of the different states in relation to child care (Gardiner 1997: 185 cites Ungerson 1990: 9).

¹⁸ Researchers at WHO and ILO have worked on these measurement issues for some time eg. Anker (1994) and Goldschmidt Clermont (1987 and 1994) who discuss and summarize problems involved in documentation of occupational and domestic roles in the region.

¹⁹ In this regard see the exceptional pioneering work of Popkin and others in the Phillipines adopting time use studies etc. (See Popkin (1980); Popkin & Solon (1976); Popkin et al. (1989); Popkin & Doan (1989).

²⁰ In depth studies have been designed by Macro International and undertaken in Mali and Ghana which seek to begin to fill this gap. (see Castle et al. 2001).

²¹ Caring is recognized as applying to three kinds of relationship between the cared for and caring. In one the relationship is unequal and the caring services are commanded or possibly bought. In another the cared for are unable to provide services for themselves because they are too young, too old or too ill and therefore dependent upon care. Third there are reciprocal care relationships (Waerness 1984).

²² In Sub Saharan Africa according to DHS findings babies obtain a considerable part of their breast milk during the night when they sleep with their mothers.

²³ See for example Brakohiapa et al. (1999) on the need for sensitive burping of infants to release trapped gas.

²⁴ Scholars from a variety of disciplines contributed to the relevant literature at that time, eg. Mead (1970); Brown (1970); Nerlove (1974); Whiting et al.(1975); Leiderman (1977); Popkin et al. (1976). Brofenbrenner (1977) provided an over arching framework on child development.

²⁵ Gottlieb in De Loache and Gottlieb (2000) tells a grandmother’s tale from neighbouring Cote d’Ivoire, which shows how things are changing to the detriment of the mother-infant bond.

²⁶ Two examples illustrate the seriousness of this plight for the baby. One comes from a Ghanaian newspaper, another from a monograph on nutrition in Mali. See *Baby Burnt To Death On Farm*. *Daily Graphic* (Dec. 15, 1999: 14); also Dettwyler (1994:1-2).

²⁷ See Figure 15 p. 26: The ten leading causes in developed or developing regions. For developing countries the causes in order of importance are depression, tuberculosis, anaemia, self inflicted injuries, obstructed labour, bipolar disorder (manic depression), chlamydia, maternal sepsis, schizophrenia, war, abortion.

²⁸ In the seventies the work of Jelliffe and Jelliffe (1978) was a major landmark in setting breast feeding in its global context of human and economic development and world health.

²⁹ See for example Longmore (1959:195) on Johannesburg in the middle of the past century where things had changed so much that many of the people in a township felt that children were more of a burden than a pleasure.

³⁰ This task has been underway for some time in the International Labour Office and elsewhere. (See Anker 1994; Goldschmidt Clermont 1994).

³¹ Significantly infant death rates fell markedly in a political period when cotton stopped coming to the Lancashire mills and factory working mothers had to stay at home and so were able to nurse their own infants.

³² According to recent FAO (1998) reports the emerging empirical evidence supports the contention that the impact of Structural Adjustment Programs on rural women farmers has been mainly negative and accordingly detrimental to food security (FAO 1998: 29).

³³ See Townsend (1997) on Botswana for an approach to studying male parental responsibilities over the life cycle.

³⁴ Between 1950 and 1985 the recorded female labour force participation rate in developing countries rose from 37% to 42%. By now globally 45 percent of females 15 to 64 are recorded as economically active.

³⁵ The picture of women's work is difficult to draw with accuracy, since so much of the work of women in the developing world is on family farms and in small scale enterprises and still remains officially undocumented. See for example Oppong ed. (1987) and Adepoju and Oppong eds. (1994).

³⁶ Admittedly information on women's workloads is often difficult to obtain and there are several well known methodological problems involved, linked to seasonality of work, informality, multiplicity of activities and bias of informants and researchers (On Africa in particular see Anker 1994). It is not unknown for women to work intensively every day regardless of the season, with working days lasting 18 to 20 hours, while men folk purport to ignore that women are working.

³⁷ However attempts to document and compare the impacts upon women's employment and work schedules of recession, structural adjustment programmes, globalisation and deregulation processes have been hampered by a lack of comparable data from different periods in time and different localities and occupational categories (Baden 1993).

³⁸ The traditional means have been very effective. They include sexual abstinence *post partum* and exclusive breast feeding. Significantly the shorter and less intensive breast feeding, associated with mother's work and maternal child separations and early shifts onto mixed feeding regimes, cuts down the length of *post partum* amenorrhoea and is consequently implicated in shorter birth intervals.

³⁹ See the case of Tanzania described by Howard and Miller (1997). Attention is drawn to the greater labour burdens of women, their increased responsibilities to provide for themselves as well as their children, while social support from kin has largely broken down. Instances of infants and toddlers left alone while parents work indicate the profundity of the problem.

⁴⁰ See Stewart (1998), Editorial in *The Canadian Journal of Psychiatry*.

⁴¹ See the recent World Bank (2000) volumes in which the poor speak.

⁴² Cf. Elder 1974 and 1990. Contemporary African accounts of family violence give the impression it is mounting eg. Appiah and Cusack eds. (1999).

⁴³ Significantly the reconciliation of family and working life, and the ways in which changing gender roles are affecting these, has recently been reckoned to be one of the most pressing policy and political issues facing all European societies (Walby 1998:xiv).

⁴⁴ Etzioni (1993) has graphically indicated with respect to the US, the shift in time allocation from parenting to the paid labour force which has occurred, while the devaluation of children is indicated by the fact that paid child minders are paid less than janitors or zoo keepers!

⁴⁵ Note Palmer-Jones and Jackson's (1997) commentary on how development programs themselves may result in the escalation of women's bodily energy expenditure leading to serious but unconsidered somatic suffering.

⁴⁶ Eg. Fukuyama on *The Great Disruption* (1999).