THE DEVELOPMENT OF YOUNG CHILDREN:

Why We Should Invest and Some Suggestions about What Can Be Done

A Discussion Paper prepared for

The Agency for International Development

by

Robert G. Myers

The Consultative Group on Early Childhood Care and Development

June 1, 1991

IT MAY SEEM OBVIOUS, BUT . . .

The world is filled with believers in the value of good care and attention to children during their earliest months and years. That belief is embedded in virtually all cultural traditions. Indeed, both common wisdom and hard scientific research evidence lead to the forceful conclusion that the earliest years of life are critical in the development of the intelligence, personality, and the social values and behaviors that will characterize later life.

But in spite of the seemingly obvious importance of the early years, the developmental needs of children are being neglected. Millions (perhaps hundreds of millions) of children throughout the world suffer delayed, debilitated or distorted mental, social or emotional development in their early years. These children are victims of social neglect in varying degrees and forms and for various reasons. Deprived of the chance to develop their abilities, they find it difficult to cope adequately with a rapidly changing and increasingly complex world, let alone to help in the construction of a better world. They are condemned to lethargic, dependent, unproductive and unrewarding lives. These children — and their families and communities — need help if they are to have a fair start in life.

*Simply stated, child (and human) development refers to a process of change in which children (people) become able to handle ever more complex levels of moving and coordinating, of thinking and reasoning, of feeling and expressing emotions, and of relating to and interacting with others people and with the natural environment. This differentiates "development" from "growth," the latter characterized by increases in size rather than complexity or function. The physical, intellectual, social, emotional, and moral dimensions of development are interrelated; progress along one dimension can affect progress along others.

For a child to develop in a healthy and normal way, it is important not only to meet the basic needs of protection, food and health care, but also to meet basic needs for affection, interaction and stimulation, security, and learning through exploration and disovery. All children develop and there is a general sequence or pattern to that development. But the rate and character and quality of development will vary from child to child. Development begins pre-natally and occurs throughout life. It occurs as a changing child (biologically) interacts with the people and objects that constitute the changing contexts of family, community, society and culture.

The specific goals to which such development are directed will differ from culture to culture, some putting more emphasis on physical abilities than on abstract reasoning, or on social relations than on individualism, for instance.

But if the value of the early years is so evident, why is the problem so widespread? Why is there such neglect by families and social institutions? Among the reasons that might be offered are the following:

- o Families living in extreme poverty or victimized by war or famine, may be so busy surviving they cannot give the loving attention to their children they would like to give. Families living in luxury may be too busy making money, or spending it, to give needed time to their children. At the same time, some institutions that could help families to help their children develop well take the position that child care is best left to families.
- o Child development is sometimes looked upon as a natural process that needs no help. Or, it is seen as a byproduct. Often, institutions incorrectly assume that their programs of sanitation or income generation or community development will automatically foster total child development.
- o Specialization deters action. Our academic and bureaucratic institutions are increasingly fractured and piecemeal. But children are not made in pieces corresponding to nutrition, health, education and social welfare. Because child development is best approached in a holistic way and requires the attention of all of these sectors, it is at once everyone's concern and no-one's concern.
- o In a world of limited resources and of demands for hard economic evidence to justify budgets, it is as difficult to produce "rates of return" for early childhood investments as it is for any social program.
- o Young children are certainly not a political force -- someone must look after their interests for them.
- o Delayed or debilited development is not as dramatic as death or third degree malnutrition and the effect of deteriorating conditions on development is not as obvious. Accordingly, the child development part of the "silent emergency" is just beginning to be documented and realized and acted upon.

In brief, we need to be reminded why the early years are so important for both individual and social futures. We need to have before us a set of convincing arguments based on something other than feelings or biases, combining both scientific and political reasons for attending to young children. That is the intent of the following pages which set out eight reasons for increasing support to, and involvement in, programs that foster early childhood development.

EIGHT REASONS FOR INVESTING IN PROGRAMS OF EARLY CHILDHOOD DEVELOPMENT*

In summary:

- 1. A scientific argument. Research evidence demonstrates that the early years are critical in the development of intelligence, personality, and social behavior, and that there are long-term effects associated with a variety of early intervention programs.
- 2. A human rights argument. Children have a right to live and to develop to their full potential.
- 3. A moral and social values argument. Through children humanity transmits its values. That transmission begins with infants. To preserve desired moral and social values in the future, one must begin with children.
- 4. A social equity argument. By responding to the developmental needs of children and families who are "at risk", it is possible to modify distressing socio-economic and gender-related inequities.
- 5. A political argument. Children provide a rallying point for social and political actions that build consensus and solidarity.
- 6. An economic argument. Society benefits economically from investing in early childhood programs because its productive capacity increases and because cost savings result.
- 7. A programme efficiency argument. The efficacy of various components of sectoral programs (health, nutrition, education, women's programs) can be improved through their combination in an integrated child development program.
- 8. Changing social and demographic circumstances. The increasing survival of vulnerable children, changing family structure, composition and childrearing practices, urban-rural migration, the growing presence of women in the labor force, and other changes create imbalances that require concerted attention to early care and development.

Some of these lines of argument will be more relevant to one situation than to another. Different individuals will find appeal in different arguments, reflecting their particular concerns about deteriorating social values, the importance of learning to live together, the rights of children, economic benefits, social equity, etc.

Scientific evidence demonstrates early and lasting effects of early attention to child development.

Evidence from the fields of physiology, nutrition, psychology, education and other fields continues to accumulate to indicate that the early years are critical to all of later life. To cite a few of the findings:

- o Brain cells are formed during the first two years. In addition, recent research shows that stimulation of a child's senses affects the structure and organization of neural pathways in the brain during the formative period. By age 6, most of these connections are made (or not, as the case may be). Thus, providing opportunities for appropriately complex perceptual and motor experiences at an early age favorably affects various learning abilities in later life and can even compensate, at least partly, for deficits associated with early malnutrition (Dobbing, 1987).
- o Children whose caregivers interact with them in consistent, caring ways will be better nourished and less apt to be sick (therefore, more likely to survive) than children not so attended (Zeitlin, Ghassemi, and Mansour, 1990).
- o Establishing a loving relationship with a person in the early months of life has been shown to affect the ability later in life of a person to love and to establish permanent relationships (Sroufe and Cooper, 1988).
- c Longitudinal studies demonstrate long-term effects associated with a variety of intervention programs. These effects go beyond the learning of basic abilities to include: improved school attendance and performance, increased employment and reduced delinquency during the teenage years and reduced teenage pregnancy (Myers, 1991).

2. Children have a human right to develop to their full potential.

Allowing disability and arrested development to occur each year for millions of young children, when it could be prevented, is a violation of basic human rights. The fact that children are dependent on others for satisfaction of their rights creates an even greater obligation to help and protect them.

The Declaration of the Rights of the Child, adopted unanimously in 1959 by the UN General Assembly, recognized among its 10 principles:

Principle 2: "The child will enjoy special protection and will have at its disposal opportunities and services,

useful to attract family participation in pre-school or parent education programs; primary health activities can serve to detect delays in mental and social development as well as to detect or treat disease; and parental education programs can improve the ways in which health care services are drawn upon as well as improve attention in homes. But more important than the logistic advantages, combining programs takes advantage of the synergistic relationships among health, nutrition, and early stimulation or education.

If children arrive at primary school better prepared, physically and mentally, they can make better use of the school. Not only will dropout and repetition decrease, affecting costs, but the quality of education will rise because one of the most inportant "inputs" into the school system is the child. When children are better prepared, teachers can be more effective, facilities and materials can be better used, and children can learn more from eachother. In the aforementioned review of longitudinal studies, the academic performance of children who had been part of early intervention programs was found to be superior in 8 of 12 studies. In three others, no significant differences were found between the intervened children and others and in one, effects were found in a rural, but not an urban context (Myers, forthcoming, 1991).

In a different vein, income generating programs for women that respond to child care and development needs are likely to be more successful than programs that do not. Women will not only be able to seek steadier and better paying employment if adequate child care is available, but also, studies show that if proper care for their children is assured, women (parents) will lose less work time as a result of child-related concerns (Galinski, 1986).

Changing social and economic circumstances require new responses.

In a category somewhat different from the above is a set of changing conditions that add urgency to the need for increasing attention to the young child. Over the last decade, the effects of a world recession magnified difficulties of individual families and governments, increasing levels of poverty, affecting income distribution, shaping budgets and negatively affecting the development of young children (Cornia, et.al., 1987). But even prior to the recession, and in some settings, independently of it, major social changes have been occurring that call for new approaches to early childhood care and development.

Rapid change and childrearing practices. Moves to the city, a shift to cash cropping, civil wars, construction of dams and other major changes in the contexts in which children are brought up often require changes in childrearing practices. What worked before does not necessarily work now, and affects on children's welfare can be negative. At the same time, these changes, together with the

advances in the state of the art have been impressive. We need not wait for further research to provide additional or magical answers. These may be in the making but to wait for them would be to deprive today's child of the urgent and sound assistance to which she is entitled. Moreover, advances in the state of the art have not been accompanied by similar advances in the state of the practice. For instance:

- o We know that development occurs as children interact with their caregivers and that the child must be an active partner in the process; but the state of the practice continues to place great emphasis on one-way "stimulation" of the child by the caregiver.
- o We know that there is a synergistic (mutual interaction and effect) relationship among good health, sound nutritional status and psycho-social well-being; but a mono-focal approach to programming still dominates.
- o We know that indigenous childrearing practices are often very healthy; but emphasis is placed on imported solutions.
- o We know development begins pre-natally; but program emphasis is placed on children ages 3 to 6.

In short, we know more than we think we know, we have not applied all we know and we have an adequate knowledge base for action.

We are also in a better position today than 20 years ago because program experience has accumulated during that period, providing a range pf potentially effective and financially feasible models. These include programs of center-based care and education (creches, home day care, integrated development centres, formal and non-formal preschools, play-groups, child care centres in the work-place, etc.), programs of home-based support and education for parents and other caregivers (beginning with pre-natal education and including home visiting, programs of adult education combining health, nutrition, and psycho-social concerns, mass media presentations, child-to-child programs, etc.), and broader programs of community development built around integrated attention to the child.

In some countries, attention to early childhood education and development has grown dramatically and has gone well beyond a demonstration stage. Examples of such growth can be found in the expansion of the Integrated Child Development Service in India, the non-formal community-based pre-schools for children in Kenya, the home day care program in Colombia, parental education in China, the incorporation of a child's right to care into the Brazilian constitution and the inclusion of child development content into the primary school curriculum of Jamaica. These examples suggest that moving from pilot projects toward larger scale programs is possible.

From these examples and many others, we see that low-cost, effective program options exist. In many cases an integrated child development program can result from folding an additional component into an existing structure at marginal cost. Focussing efforts on particular groups can keep costs within reason. Cost savings can moderate or even off-set the investment costs. A variety of innovative financing schemes and cost-sharing arrangements between governments and communities are possible.

We have then, a strong and multi-faceted rationale for investment, a growing need and demand, a knowledge base that is ahead of practice, and a multitude of experiences that can be drawn upon. What, more specifically, needs to be done?

WHAT NEEDS TO BE DONE?

1. Create awareness. Demystify. Inform.

A great deal of energy must be put into raising awareness about what the process of child development is, about the deteriorating conditions affecting early childhood development and about the long-term effects of developmental faltering on individuals and societies, and about the options that exist.

An effort is needed to demystify child development and to overcome misconceptions that impede actions. For instance:

- o Child survival and child development are perceived as sequential processes (rather than simultaneous ones). As a result, programming to save lives, usually defined in terms of treating or preventing disease, comes first, programming for child development, with mental and social and emotional components, comes later. They can and should come together.
- o Health and nutrition are known to influence psycho-social well-being, but the reverse is seldom recognized as true. This one-way view favors programs concentrating on health and nutrition, with psycho-social development left aside, or vice versa.
- o The myth that mothers are the sole and always the best caretakers of their children throughout the early years is associated with the idea that programs of care outside the home or with other people must be detrimental.
- o The naive notion that real learning and education begin at school seems to have grown stronger as the system of schooling has expanded. Therefore education ministries do not see the

earliest months and years of life as falling within their charge, despite strong evidence indicating that, even at birth, children are learning. Educational investment continues to go first to educational institutions from primary school onward.

- o Related to the previous point is the misconception that investments in early childhood care and education represent a direct "trade off" against investments in primary school. Because this is incorrectly seen as a "zero-sum game" a choice seems necessary, and because learning is seen as beginning in primary school, investment begins there.
- o There is a tendency to think that so-called "traditional" childrearing practices and beliefs are out-moded and need to be corrected or replaced with more modern practices. This biases early childhood programs toward a "compensatory" model rather than toward a supportive and constructive one, working with the strengths of families and communities.

This awareness-raising must involve a range of individuals and groups approaching child development at different levels and in different ways. The means used to reach and involve each group will vary and the content of the exercise must be appropriate to each. For example:

Politicians need to understand the problem, potential solutions and the broader social, economic and political implications of action or inaction. Awareness of technical details is not so important for this group.

Pianners require a greater technical understanding, must have a feel for the specific options open to them and need to know about costs. They must be shown that intellectual, social and emotional development of young children is not simply a by-product of other programs. They need examples of integrated attention.

Professionals may need to be helped to redirect their thinking toward more supervisory roles and toward actions that draw upon experience as well as on their academic preparation. Curricula will need to be reviewed and revised so that medical doctors in training learn about psycho-social health and so that teachers learn about child health and nutrition.

Program implementors (in communities, NGOS, and governments) need to be versed in the art of the possible, in thinking holistically, and in the various ways in which real participation can be incorporated into programs.

Families and other caregivers need concrete information about actions they can take in the home. They need to know they are the child's first teachers. They need to be supported with knowledge

about what they do that is right as well as about what they should do that they do not.

National and international funders need examples that help to debunk myths about costs and which show outcomes. They need also to be made aware of the interdependence of survival and development.

Mass media can play an important role in helping to raise awareness, correct misconciptions, and providing basic information about child development. But more than dissemination of information is required for changes in awareness and attitude to occur. An active strategy is needed creating opportunities for discussion, dialogue, experience with alternatives, and participation in all phases of programming for child developent. Such a strategy must build on both academic knowledge and experience.

2. Establish a comprehensive strategy.

Very few countries have a national policy with respect to children, much less a comprehensive strategy for approaching the integrated growth and development of young children. The same is true for most international organizations. As a step toward developing a comprehensive strategy, the following framework is offered, setting out five complementary approaches, identifying criteria that might be applied when establishing programs, and distinguishing several age groups of young children requiring different treatment.

2.1 Five complementary approaches

Strengthening awareness and demand. This approach, which concentrates on the production, distribution, and use of KNOWLEDGE and INFORMATION, has a degree of urgency, reflected in the emphasis given to it in the first point under "What Can Be Done?" Unless political understanding and will is present, unless program planners and implementors have a broad vision backed by solid knowledge and experience, and unless the population at large is aware of options, actions will continue to be deterred, biased, or ineffective.

Strengthening institutional resources and capacities. Efforts to strengthen governmental and non-governmental INSTITUTIONS working to improve early childhood care and development may involve setting proper legal bases (including constitutional and legal reforms as well as strengthening the financial, material and human resources available to plan, organize, implement and evaluate programs). New forms of organization may be necessary to tie together various institutional efforts. Training will be a key activity, both to provide the kind of awareness and knowledge stressed above and to strengthen specific capacities.

Promoting community development through an emphasis on early childhood development. This approach stresses community initiative,

organization and participation in a range of inter-related activities to improve the physical environment, the knowledge and practices of community members, and the organizational base allowing common action and strengthening the base for political and social negotiations. These activities, although centered around the healthy development of the young child will be of benefit to the community more broadly.

Supporting and educating caregivers. This approach focusses on FAMILY members and is intended to educate and empower them in ways that improve their care and interaction with the child and enrich the immediate environment in which child development is occurring, rather than substitute for it. Education and support for parents and other caregivers may be provided through home visits, in adult education courses, through the mass media or in child-to-child programs.

Attending to children in centers. This direct approach, focussing on the CHILD, seeks to provide conditions for healthy development of the child outside the home, compensating for or enriching what occurs in the home. These programs can take such diverse forms as that of a creche, home day care, formal and informal pre-schools, play groups, kindergartens and child care centers in the work place.

Each of these approaches is directed toward improvements in a different level of the environment influencing development of the child, each at a different distance from the child. Each approach is directed toward a different audience or group of participants although all share the over-arching goal of improved child care and development. The balance among these complementary approaches will differ according to particular situations, but some attention to each one is probably warrented in all settings.

2.2 Program Guidelines

A comprehensive strategy requires a set of guidelines to be followed as programs are formulated and implemented. These might include:

- o Focus on children and families whose living conditions put them most at risk for delayed or debilitated mental, social and emotional development.
- o Take a multi-faceted view of child development, seeking integration (or convergence) of programs in order to take advantage of the synergisms among health, nutrition and early education.
- o Seek community participation that goes beyond superficial or one-time donations to real involvement in planning, management and evaluation of programs.

o Be flexible enough to respect and adjust to different sociocultural contexts, reinforcing local ways to cope effectively with problems of child care and development, even while introducing new ideas.

Adopt approaches and models that are financially feasible and cost-effective, taking advantage of appropriate technologies that have proven to be effective.

o Try to reach the largest number of children in conditions that put them "at risk."

2.3 Different ages and stages require different treatments

A comprehensive strategy must take into account the major differences that are related to the child development process itself. These can be defined roughly as the pre-natal, infancy, "toddler" and post-toddler, pre-school, and primary school periods. Different kinds of programs will have to be fashioned for these different periods.

3. Work toward partnership.

The responsibility for the healthy development of young children is not a sole responsibility of families or of governments or of communities or of non-governmental organizations constituting a "civil society." In order to make the best use of resources and to cumulate efforts, there is a need for mechanisms that will facilitate working together by these very different institutions and groups. At a national level, this may mean, to use the term favored by UNICEF, creating a "Grand Alliance" that mobilizes many groups to work together in common cause.

In the long run, however, working toward partnership requires something less glorious and more difficult than mobilization of many people and organizations in common cause at a national level. It means creating lasting forms of cooperation in the field, at the level of the village or neighborhood. For that to happen, important shifts need to occur that take one beyond simply "working together." It means establishing conditions favoring dialogue and mutual learning (as contrasted with the imposition of ideas). It means joint participation at all points in a project or program, beginning with diagnosis and planning, and carrying through to implementation and evaluation. It means recognizing that both academic knowledge and experiential knowledge have validity. It means strengthening local organization. It means selecting and training professional and technical personnel who believe in and know how to work in a participatory way with community and other grassroots groups. Unless these shifts in the form of work occur, the empowerment of local groups necessary to work in true partnership will be slow to appear and quick to disappear, and we will be left with yet another slogan.

Among the challanges implied in the above treatment of "What Can Be Done? are:

- o Moving from a negative and compensatory program view to a positive and constructive view, beginning with the strengths in a given environment.
- o Thinking in a holistic way and translating that thinking into combined actions. This involves using "child development" not just as a concept for creating new programs, but as a screen through which to look at existing programs to see how new components can be integrated into those programs.
- o Avoiding blueprints and magic solutions. Programming to enhance the physical, mental, social and emotional development of young children cannot be built around the hope of discovering a child development vaccine. Fortunately, a range of available technologies exist that can be called upon, some more appropriate to one context, some to another. In approaching this challenge, it is obvious that a decentralized organization will have an advantage over a centralized one.
- o Reconciling a desire for "scale" with the need for flexibility and the importance of local participation. To help meet this challenge, it is useful to think of scale as the sum of many local or regional programs, each distinct, and each directed toward the same end: improvement in child development. In this jigsaw puzzle view, it is possible to envision program effects for large numbers while incorporating the ideas of flexibility and local participation.
- o Monitoring and evaluation. Better ways of monitoring and evaluating child development are needed, at project and program levels as well as at a national level. Most countries, for instance, cannot provide a profile of the condition of their children at age 5. Such a profile might include indicators of child's health and nutritional states, of pre-literacy and numeracy skills, of self-esteem.

The above treatment of ""What Can Be Done" has been at a very general level. A fuller treatment would include examining specific ways in which existing programs might incorporate missing components into their on-going activities. But this paper has already grown longer than intended. Consequently, the interested reader is referred to chapters 9 (pp. 193-204), 10 (pp. 258-262), and 11 (pp. 302-309) of The Twelve Who Survive. In these chapters, specific suggestions have been set out, respectively, for incorporating psycho-social components

into health and nutrition programs, for combining early interventions with primary schooling, and for integrating child care and development with various women's programs. In Chapters 6 and 7 of the same volume, approximately 50 examples are given, illustrating the five complementary program approaches distinguished above.

Yet another level of reply to the question, "What Can Be Done?" involves a specification of particular technologies that have proven useful. In the approach that has been outlined here, little attention has been given to specific technologies or to trying to identify an equivalent of the "GOBI" package that helped to drive child survival efforts. Instead, the emphasis is on identifying local technologies and supporting or adjusting them. Technologies will not only differ according to the particular environments and cultural contexts in which children are being brought up but will also differ according to the age or stage of development of children.

It is not difficult, however, to provide examples of particular technologies that are low-cost and that do work, including those health and nutrition technologies that affect development as well as survival. Developmentally-oriented technologies, focussing on the psycho-social development of children, may be as simple as giving a newborn to the mother immediately at birth, opening a closed cradle so a baby can see (example from Northeast Thailand), stressing interaction between mother and child during the breastfeeding process, or providing para-professionals in a non-formal preschool with training in the use of a "cognitive kit" (example from Karnataka, India). Or, part of the "what" and "how" may involve a developmental monitoring instrument — somewhat similar to that of a growth chart — or a system of lending toys linked to discussions held when children are brought to a central spot for weighing (an Indonesian example).

A CONCLUDING COMMENT

In this final decade of the 20th Century, we are in a excellent position to make a major and sustained advance in programming for improved early chare and development. We have sound knowledge and experience and technologies to draw upon. Consciousness of the importance of care and development is growing — albeit slowly. That consciousness is indicated by the recent expansion of early childhood programs, even in a time of economic retrenchment and adjustment.

In spite of these advances, the level of investment by many national and international organizations is still low, and their stance is lukewarm at best. But the fact that we are still at an early stage means that we have room to shape the process of programming for early childhood care and development, learning from and avoiding mistakes that have been made in other program areas.

If a new and conscious and broad-based initiative fails to materialize, we will continue to drift toward greater, but not necessarily improved, attention to the developmental needs of young children. Meanwhile, the measured and dilatory pace of that drifting will deprive generations of "at risk" children of a fair start in life.

But more, failure to act could easily prejudice future generations by allowing an out-moded, monolithic, socially-biased, bureaucratic, centralized, formal and uncreative model of early childhood care and development to expand, taking its cue from extension downward of a problem-riddled primary school. This trend must be arrested. Action must be taken to place much greater effort on development in the earliest years, on social as well as mental and physical development, on family and community involvement, and on "constructive" rather than "compensatory" programming. These shifts in focus and organization will not happen by themselves. And, if they do not begin now, we will soon pass the time when we are early enough in the process to be able to make a real difference in the organizational outcome.

The challenge in building strong programs of child survival, care and development is at once immediate and long term. In the remaining years of this century, many pages will be written about preparation for the 21st century. Many assessments will be made, accompanied by dreams for a better future. In all of this it would be well to remember that the primary school graduates of the Year 2000 have already been born and are being prepared for their future lives. They have already, for the most part, passed the critical period from ages 0 to 6. We are, then, already thinking well into the 21st century as we talk about the new-borns who will be the dreamers, builders and leaders of tomorrow. They will be responsible for seeking economic and social justice, for halting the devastation of our environment, and for building a world in which neighbors and nations can live together in peace.

REFERENCES

- Berruta-Clement, et.al., Changed Lives: The Effects of the Perry
 Pre-school Program on Youths Through Age 19. Ypsilanti, Mich:
 High/Scope Educational Research Foundation, Monograph No. 8, 1984.
- Bonilla, E. "Working Women in Latin America," in Economic and Social Progress in Latin America, 1990 Report of the Inter-American Development Bank. Washington: Johns Hopkins University Press, October 1990.
- Carloni, A.S., "The Impact of Maternal Employment and Income on the Nutritional Status of Children In Rural Areas of Developing Countries: What is Known, What is Not Known, and Where the Caps Are," A report prepared for the United Nations, FAO, Administrative Committee on Coordination, Subcommittee on Nutrition, 1984. (Mimeo.)
- Colclough, C. "Primary Schooling and Economic Development: A Review of the Evidence," Washington, D.C., The World Bank, 1980. Staff Working Paper No. 399.
- Cornia, A., R. Jolly, and F. Stewart. Adjustment with a Human Face:
 Protecting the Vulnerable and Promoting Growth. New York: Oxford
 University Press, 1988.
- CINDE (International Center for Education and Human Development).
 "Highlights of an Evaluation of Project Promesa," Fort Lauderdale,
 Florida, CINDE-USA, February 1990.
- Dobbing, J. (Ed.). Early Nutrition and Later Achievement. London: Academic Press, Inc., 1987.
- Filp, J. et.al. "Relationship between Pre-primary and Grade One Primary Education in State Schools in Chile, in K. King and R. Myers (Eds.), Preventing School Failure: The Relationship between Preschool and Primary Education. Ottawa: The International Development Research Centre, 1983.
- Galinsky, E. Investing in Quality Child Care: A Report for AT&T. New York: Bank Street College of Education, 1986.
- Grant, J. The State of the World's Children, 1991. New York: Oxford University Press, 1990 (for UNICEF).
- Grawe, R. "Ability in Preschoolers, Earnings, and Home Environment, Washington, D.C., The World Bank, 1979. Staff Working Paper No. 319.
- Inkeles, A. and D. H. Smith. Becoming Modern: Individual Change in Six Developing Countries. Cambridge, Mass.: Harvard University Press, 1974.

References (continued)

- Klein, R. "Malnutrition and Human Behavior: A Backward Glance at an Ongoing Longitudinal Stuydy," in D. Levitsky (ed.), Malnutrition, Environment and Behavior. Ithaca: Cornell University Press, 1979.
- La1, S. and R. Wati. "Non-Formal Preschool Education -- An Effort to Enhance School Enrollment," A paper presented to the National Conference on Research on ICDS, February 25-29, 1986. New Delhi, National Institute for Public Cooperation in Child Development (NIPCCD). (Mimeo.)
- Lockheed, M.D., D. Jamison, and L. Lau, "Farmer Education and Farm Efficiency: A Survey," **Economic Development and Cultural Change**, No. 29 (October 1980), pp. 37-76.
- Maguire, J. and J. Austin, "Beyond Survival: Children's Growth for National Development," **Assignment Children**, No 2 (1987), New York, UNICEF.
- Ministerio da Saude, y Instituto Nacional de Alimentacao e Nutricao, "Analicao do PROAPE/Alagoas com Enfoque na Area Economica, Brasilia, MS/INAN, 1983. (Mimeo.)
- Myers, R. The Twelve Who Survive. London: Routledge, forthcoming, 1991.
- Rogoff, B. "Schooling and the Development of Cognitive Skills," in H. Triandis and A. Heron (Eds.), Handbook of Cross-cultural Psychology, Vol. 4. Boston: Allyn-Bacon, 1980.
- Selowsky, M. "Nutrition, Health, and Education: the Economic Significance of Complementaries at Early Age," Journal of Development Economics, Vol. 9 (1981), pp. 331-46.
- Sroufe, L.A. and R.G. Cooper. Child Development, Its Nature and Course. New York: Random House, 1988.
- Triandis, H. "Reflections on Trends in Cross-Cultural Research,"

 Journal of Cross-Cultural Psychology, Vol. 11, No. 1 (1980), pp. 35-58.
- United Nations Secretariat, ""Convention on the Rights of the Child," New York: The United Nations, November, 1989.
- Youssef, N. and C.B. Hertler. "Rural Households Headed by Women: A Priority Concern for Development," Rural Employment Programme Research Working Paper, Geneva, International Labour Organisation, 1984.
- Zeitlin, M, Ghassemi, H., and M. Mansour, Positive Deviance in Child Nutrition, with Emphasis on Psychosocial and Behavioural Aspects and Implications for Development. Tokyo: United Nations University, 1990.