

DOCUMENT RESUME

ED 047 025

JD 011 128

AUTHOR Gussow, Joan Dye
TITLE Bodies, Brains and Poverty: Poor Children and the Schools.
INSTITUTION Columbia Univ., New York, N.Y. ERIC Clearinghouse on the Urban Disadvantaged.
SPONS AGENCY Office of Education (DHEW), Washington, D.C.
PUB DATE Sep 70
NOTE 20p.; IFCD Bulletin; Volume 6, Number 3
EDRS PRICE MF-\$0.65 PC-\$3.29
DESCRIPTORS Breakfast Programs, Economic Disadvantage, Educational Disadvantage, Government Role, *Health Programs, *Hunger, Infant Mortality, *Medical Research, *Nutrition, Prenatal Influences, *Special Health Problems

ABSTRACT

In this issue of the IFCD Bulletin is reviewed the status of research relating to health, nutrition, and learning as pertaining to children from economically disadvantaged families. At present there is considered to be little hard evidence in support of the notion that children's present biological condition is correlated with their learning. The question thus remains as to whether it is rational (or humane) to attempt to teach a child who is hungry, ill, or, tired. If not, then health and nutritional programs should be instituted as the one sensible course of action, and not merely because they may be based on scientific research findings. Also included in this issue of the Bulletin is an article on the recommendations for child health care, which has been reprinted from the "Bulletin of Pediatric Research," Volume 4, November 1970, with the permission of the American Academy of Pediatrics. (Authors/PM)

ED0 47025



IRCD BULLETIN

PUBLICATION OF THE ERIC INFORMATION RETRIEVAL CENTER ON THE DISADVANTAGED

Horace Mann-Lincoln Institute • Teachers College • Columbia University
525 West 120 Street, N. Y., N. Y. 10027

Volume VI, No. 3

September 1970

Orphans Of Wealth

Copyright © 1969 by Yahweh Tunes and Mavday Music Inc.

Words and Music
Don McLean

There is no time to dis - cuss or debate what is right, what is wrong
 for our people, time has run out for all those who wait with bent limbs
 and minds that are feeble, And the rain falls and blows through the window
 and the snow falls and blows through the door, and the seasons revolve 'mid their
 sounds of star - vation, when the tides rise. they cover the floor.

Chorus:

UD011122

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY



And they come from the North, and they
come from the South, and they
come from the hills and the valleys
And they're migrants and farmers and
miners and humans
the census neglected to tally

Chorus.

And they're African, Mexican, Caucasian, Indian,
hungry and hopeless Americans
The orphans of wealth and of adequate health
disowned by this country they live in
With weather-worn hands on breadlines they stand
yet but one more degradation
and they're treated like tramps while we sell
them food stamps
this thriving and prosperous nation.

Chorus.

And with roaches and rickets and rats in the thickets,
infested disease and decaying
with rags and no shoes and skin sores that ooze
by the poisonous pools they are playing
In shacks of two rooms that are rotting wood tombs
with corpses breathing inside them
and we pity their plight as they cry in the night
and we do all that we can to hide them.

Chorus.

And the rain falls and blows through their window
and the snow falls in white drifts that fold
and the tides rise with floods in the nursery
and a child is crying, he's hungry and cold
his life has been sold, his young face looks old
it's the face of America
Dying.

Bodies, Brains and Poverty: Poor Children and the Schools

Joan Dye Gussow

"Health in the case of human beings means more than a state in which the organism has become physically suited to the surrounding physiochemical conditions through passive mechanisms; it demands that the personality be able to express itself creatively."

R. Dubos. *Man Adapting* xviii

At the time the *IRCD Bulletin* was launched five—now almost six—years ago, the educational literature was just making the transition from the concept "culturally deprived" to the somewhat less pejorative concept "socially disadvantaged" as a way of describing several groups of children whose school failure was becoming an increasing source of embarrassment to the nation. The terminological shift was meant to indicate a growing awareness that these children were not so much deprived of culture as they were differently acculturated, exposed to various "subcultures of poverty and discrimination" which failed to equip them "to adapt successfully to the middle-class cultural patterns which prevail in the larger society."¹

We are now half a decade older and hopefully wiser. All too aware of the—at best—partial success of programs based on the notion that the "disadvantaged" were simply differently socialized, we are increasingly less certain that we can fully compensate these children merely by exposing them—even early and intensively—to certain social and intellectual experiences which they have missed. Into this climate of uncertainty have come voices of despair arguing that the reason compensatory education has so seldom succeeded is because the children it is serving are genetically inferior. It is not necessary to review here the arguments which have been advanced against the genetic inferiority theory, whose most publicized proponent is Arthur Jensen. These refutations have already been eloquently put forward in a prior issue of the *Bulletin*.² But it should be pointed out that one reason we have been so vulnerable to Jensenism is because we have taken such a narrow view of "disadvantage." The concept that disadvantage was "social" has led us to neglect large parts of the environment which are relevant to learning.

Perhaps it would be useful if for the moment we again thought of "disadvantaged" children simply as poor. It is undeniable that the majority of the children whose educational problems have proved most intractable come from families who are poor—many of them come from families who are very poor—and poverty is demonstrably much more than a social or a cultural condition. Such a statement is not meant to ignore the fact that poverty is also much more than merely a financial condition. In this country actual need is often maintained and compounded by discrimination and powerlessness—in themselves formidable barriers to educational achievement.

Unfortunately, defining the problems of our impoverished children as "social disadvantage" no less than defining them as "cultural deprivation" has encouraged us to ignore the fact that poverty is first of all a condition of the body, not of the mind. Fundamentally, being poor means having too little money to maintain an adequate standard of living; their poverty effects what people eat and what they wear, where they live and what vermin they live with, what diseases they are exposed to and what financial, physical and emotional resources they possess for battling against all these things. Poverty is a material fact of life and has a significant, often lasting, impact on the physical as well as the mental health and well-being of impoverished individuals, especially those unfortunate enough to be born to it.

On the lists of current best sellers is a book of popular physiology entitled *The Body Has a Head*.³ What educators ought to keep firmly in mind is the opposite proposition, namely, that the head has a body. As specialists in learning we forget at our peril that the capacity to learn is a characteristic only of a living organism; that children, as learners, are living organisms, not all of whom have been put into physical environments equally supportive to their well-being. That these obvious truths have implications for education is the message of a recent book in whose writing I shared, *Disadvantaged Children—Health, Nutrition and School Failure*.⁴

It is the major burden of this book that there is an urgent need for a new formulation of the problem of educational handicap among the poor, a formulation "in which the child is seen as a mind in a body, in a world that is both physically and psychologically hazardous." Though "cultural disadvantage" is real, "it is but a fragment of the threat which a poor environment offers to the intellectual development of a child. . . . The poor, from conception until death, are also at differential risk with respect to a whole spectrum of physical hazards, any one of which may be productive of intellectual deficit and educational failure."⁵

In demonstrating the proposition that the physical hazards associated with "living poor" must count among the significant educational handicaps of poor children, *Disadvantaged Children* asks and answers two kinds of questions. One, is there evidence that poor health among mothers and their children is associated with decrements in the mental development and school achievement of those children?

Birch, H. G. and J. D. Gussow. *Disadvantaged Children—Health, Nutrition and School Failure*. New York: Harcourt, Brace and World—Grune and Stratton, 1970. 322 pp.

(Continued on page 4)

UDC 1155

JOAN GUSSOW is a doctoral student and instructor in the Department of Nutrition at Teachers College, Columbia University, and formerly a research assistant for IRCD.

(Continued from page 3)

And two, are there commonly present among the populations which have been characterized as disadvantaged, health conditions sufficiently poor to produce such a decrement? The book concludes that both these questions must be answered in the affirmative.

Since the data and the arguments which support these answers are neither straightforward nor easily condensed, I want here merely to indicate the nature of the evidence on which the book draws and discuss the conclusions to which this evidence points. I should then like to consider some of the implications of these conclusions for the schools and the children they are attempting to serve.

The assertion that there exist appalling conditions of nutrition and health among many groups of poor families in this country has in the last year or so become almost a commonplace. That poor children are starving, are being bitten by rats, are disproportionately falling ill with infectious diseases, are dying for lack of hospital care—all these are circumstances which, like war-protests, pollution and overpopulation, have come to sporadic public attention through the popular press. But such accounts are anecdotal—hard facts are more difficult to come by. The set of facts with which *Disadvantaged Children* begins are those about the deaths of infants; for in any population infant deaths are tide markers indicating the level of health hazard to which that population is exposed. Indeed, the rate at which children die in the first year of life is perhaps the single most reliable indicator of relative environmental hostility or beneficence; so that comparing the mortality rates of infants from advantaged and disadvantaged groups can tell us what kinds of health conditions are likely to exist among these groups.

Children Who Die

In the United States just over two out of every one hundred children born alive dies before his first birthday. This is a relatively poor showing—in fifteen other countries babies are safer at birth—but among some groups in this the richest country in the world, life in its first year is even riskier. On a nationwide basis, nonwhite infants die at almost twice the rate of white infants (a fact which helps to explain the much higher mortality rates of the Southern states). Yet shocking as this differential is, it is actually deceptively low if what we are looking for is the deadly mark of poverty. For vital statistics in this country are not usually divided by social or economic class. In countries where they are, as *Disadvantaged Children* points out, there is a definite pattern of increasing infant death with decreasing economic class; that is, poor infants are more likely to die than well-off ones.

In the United States, where statistics are dichotomized by "color," the economic pattern is more difficult to discern. All shades of people classed as "nonwhite" (Indians, Eskimos, Aleuts, Filipinos, Hawaiians, Orientals and blacks) are lumped together without regard to economic class. Similarly, every economic level of "white," including minorities of Puerto Rican, Mexican and Cuban origin, are in a single group. Since, however, the great majority of the whites are not Puerto Rican, Mexican or Cuban in origin, the health statistics of these and other relatively impoverished white groups tend to be swallowed up in the overwhelming

number of relatively well-off whites. This is one reason poverty and its effects have been so difficult to "see" among whites. In the same way, although there are differences between the various groups classed as nonwhite—Indians tend to be the poorest and the unhealthiest; Orientals tend to be the best-off and the healthiest—it is the economic characteristics of the blacks, who constitute the overwhelming majority of the group classed as nonwhite, which determine the nonwhite mortality statistics. Thus, the two-to-one ratio of nonwhite to white infant deaths reflects the degree to which poverty and membership in the black minority tend to be associated in this country.

Because of the presence of "poor whites" in the white population, however, and of "rich nonwhites" in the nonwhite population, a comparison of all whites and all nonwhites is actually a comparison of arithmetic means. If we compare extremes, that is, if we compare the infant mortality rate of well-off segments of the white population and impoverished segments of the nonwhite population, the differences in rates of infant death are, as *Disadvantaged Children* points out, much more marked. Thus a black baby born in an urban ghetto or in a state like Mississippi (which has the worst infant mortality record in the nation), or an Indian baby born in many parts of the southwest or Alaska, is three to four times more likely to die than a white baby born in a well-to-do neighborhood.

Proceeding from the assumption that where so many children are dying health conditions must be poor, *Disadvantaged Children* draws on the admittedly limited statistics on hunger and illness available in this country in order to compare first, the conditions under which advantaged and disadvantaged children are conceived and born; and second, the health conditions which they experience in infancy and childhood.

The Health of Mothers

If one compares the reproductive histories of women who are poor and those who are not, it is evident that poor children, especially poor children who bear the additional handicap of ethnic difference, have mothers who are subject to higher rates of almost every major abnormality associated with reproduction—among them various illnesses and complications during pregnancy, difficulties in the time of delivery and abnormalities of the period immediately after birth. Since low birthweight is so intimately associated with these other risk conditions, groups which experience high rates of prematurity can be assumed to be at similarly high risk of other reproductive abnormalities. Using low birthweight as a generalized indicator of such reproductive risk, *Disadvantaged Children* is able to show that not only is this risk much greater for nonwhite than for white babies, but that it has been getting relatively worse. Between 1950 and 1968 the proportion of underweight babies in the newborn nonwhite population went up from 10.6% to 13.7%, while the incidence of underweight births among whites remained constant. The effect of this differential movement was a nonwhite prematurity rate which by 1968 was almost double the white rate of 7.1%. During the same 18-year period, while the median birthweight of whites remained constant, the median birthweight among nonwhites went down. Although arguments have occasionally been advanced to the effect that black babies are "naturally" smaller than white babies, the book makes clear in a series of oe-

* As of 1970, this group is designated as "all other."

(Continued on page 9)

Getting Them Ready to be Taught

(Excerpts from the testimony of Superintendent of Schools B. P. Taylor before the Senate Select Committee on Nutrition and Human Needs, Thursday, January 23, 1969.)

The Chairman. The final witness this morning is Mr. B. P. Taylor, the superintendent of schools of San Diego, Tex., and we would like to hear from Mr. Taylor at this time.

Mr. Taylor, you may proceed in any way you wish.

Mr. Taylor. All right, Senator Back in 1959, in the school district in San Diego, after I became superintendent, we had some real problems, problems of nutrition, problems of health, problems of attendance, problems of dropouts, and major basic problems of the school district.

Well, our staffs got together and found out what could be done, and what we thought should be done in regard to these problems, and ultimately the problem that consistently came up was food and health. . . .

Well, we started with feeding them lunch, all the students, school children from first grade through 12, of which we had a large number participating.

At the same time we did that, a few years later, we started with the breakfast program with the Department of Agriculture, and with the same number participating.

We started a preschool program prior to the Headstart, whereby we had the 5-year-old children up there for some 13 months, from June to a year from the following August, prior to the first grade.

We found some phenomenal things over the past 3 years. We found that just with these programs, attendance climbed by some 15 to 20 percent. We found that the dropout record was real low, that our ADA would be from 95 to 98 percent consistently through the year.

Well, we followed up on these programs to a point then along came Title I. This made it possible for us to afford a number of things, and with our own local effort we followed up on a program. We gave the children eyeglasses that needed them, hearing aids that needed them, corrective shoes. . . .

Senator Ellender. During the course of your presentation, would you tell us how all this is financed?

Mr. Taylor. Well, it is financed through the Title I program.

Senator Ellender. Through what?

Mr. Taylor. Title I, Elementary and Secondary Act.

When that act was enacted, as you know, it was explained to us through our agency, and I am sure they are correct, that they wanted to give the schools what they had not had before in the order of first things first, and we knew beyond a shadow of a doubt that food and health was the first thing, as far as our children were concerned.

The Chairman. Mr. Taylor, you started this program, though, long before the Elementary and Secondary Education Act. As I understand it, it began in 1959.

Mr. Taylor. Yes, sir.

The Chairman. What were the conditions that led you and your school board and the community to reach a judgment 10 years ago that you wanted to make sure that every student in that school had an adequate diet and adequate health?

Mr. Taylor. Well, we have visiting teachers to go out to the community and check on absences, check with the local doctors. We kept charts on the number of children. We knew the teacher connection with most families in town. We knew the children that came from the low-income brackets. We knew the ones that were more frequently sick than others. We knew the ones that were frequently sick and not taken to a doctor. Because of close relationships between the school district and the people, we never hesitated in going into the house, the teachers or the counselors or the nurses, to check on these things.

Inevitably, the teachers, with the nurse, and with the counselors, all agreed these children were not getting an adequate diet.

They were not taken to the doctor when they should be. I don't think it was a matter of parents not having loving concern. I think it was a matter of economics on the one hand, and on the other hand it was a matter of education of the parents as to when they should be concerned about these problems. . . . basically we adopted a philosophy in the school district . . . that we felt that

no child could be educated if he were hungry, if he felt bad, if on occasions he got sick more frequently than other children.

So we accepted the responsibility of this being part of our job, getting these children ready to be taxed to the maximum, and the teachers in the school district and the people within the school district adopted this theory.

The school board, of course, went along with it 100 percent, and to do this you have to have some dedicated people. You have to have people that recognize the problem and want to cure the problem.

They are not just teachers. They are people that participate in a school program, regardless of what the program develops into, in regard to size and time and hours. We are one of the few school districts in the State, I think, that particularly has no teaching problem. We find teachers readily.

Our teachers understand the problems. We let the nurses meet with them, and the elementary school counselors meet with our teachers, and explain the problems that we are trying to work with throughout the year.

It has been a successful program from the standpoint of attendance, from the standpoint of children feeling better, from the standpoint of grades.

We know that children that we have started with the in-school program and fed breakfast and lunch, along with our extensive recreation program in the summertime, make better grades than the students prior to this did.

The Chairman. Do you feed them in the summertime, also?

Mr. Taylor. Yes, sir; we feed them in the summertime. A lot of this is local effort. A lot of it is Title I money.

The Chairman. But they come to the school?

Mr. Taylor. Yes, sir.

I don't know if we have oversold it or not, but it is a community. We keep all our gyms open the year around, our library open the year around. We have playgrounds for elementary school children. We have a swimming pool.

These are all watched over by professional people, teachers.

If I may say so, teachers do this work around the clock, and during the year.

* * * *

The Chairman. Mr. Taylor, may I stop you there for just a moment and ask you if you could tell us a little about the composition of your student body, the number of students, the economic level, and/or ethnic background of these youngsters?

Mr. Taylor. Yes, sir. We have about 1,600 students, of which 99 percent are Mexican-American descent. The income of our families in our school district according to the 1960 census is that some 50 percent of them are under the \$3,000 bracket. It might be a little higher now.

The Chairman. They are essentially low income?

Mr. Taylor. Yes, sir, they are essentially low-income families.

The Chairman. Superintendent Taylor, do you provide a school lunch to all of the 1,600 students in your jurisdiction?

Mr. Taylor. Well, we provide school lunch to all of the youngsters that need it, from the kindergarten all the way through the eighth grade.

Of course . . . we have some work-study jobs through our area vocational school, and all these youngsters eat at the cafeteria, and they are able to buy their lunch at the cafeteria, because of the money that they make through these programs.

The Chairman. What percentage of the students are fed without cost to them?

Mr. Taylor. Well, in the first eight grades, you have some 771 children enrolled, and I would say about 90 percent of all the children in the lower grades.

The Chairman. They are fed without any cost?

Mr. Taylor. Without any cost at all; yes, sir. Of course, a breakfast and lunch. We insist that the children participate in both breakfast and lunch, and they are glad to do so.

This breakfast program, when it came in at a later date, was a problem, because they had not been used to eating breakfast, but now it is as important, if not more important, than the lunch meal. They seem to consume their food better.

This meal has got great participation in it. Of all the children

(Continued on page 6)

(Continued from page 5)

that are eligible, some 95 percent attend regularly the dinner and breakfast.

Senator Yarborough. May I ask a question?

The Chairman. Senator Yarborough.

Senator Yarborough. Superintendent Taylor, how many Anglo children do you have in your school district?

Mr. Taylor. Four, and they are mine.

• • • • •

The Chairman. I am curious, Superintendent Taylor. Is the assumption in feeding all of these youngsters, without cost to the student, based on your feeling that most of the families in that community just are not capable of paying?

Mr. Taylor. That is it.

The Chairman. Suppose you were an administrator in a community where there were sharp differences in economic levels, and some of the families could afford to pay, but the majority could not, what would you do in terms of protecting the students, not just in terms of their diets, but also some recognition of the feelings against them?

Mr. Taylor. We do it that way right now. No one knows in our school district who pays for their lunch and who does not, except the confidential list that we have in my office by name.

The Chairman. That is confidential information?

Mr. Taylor. Yes. No one knows. Not even the classroom teacher that is teaching the students knows who is free and who is not free. All she gets is the number of people that go to the cafeteria day by day.

The Chairman. You mentioned a rather dramatic result, which you detected in terms of the grades and academic performance and general effectiveness of the students. Can you talk a little bit more about that?

Mr. Taylor. Well, we find that with this program that of course the children attend more regularly. Our ADA is constantly above 95 percent. The average student in school attends over 95 percent, and this is documented . . .

We found . . . that these students, after receiving meals and health services—and I am sure the health services were as important in many instances as the food—such as glasses, hearing aids, constantly come to school and consequently make better grades.

Another problem that we were faced with was when I first got there, we had a bunch of retainers in the first grade.

I know one of the problems was the language barrier, along with inability to consume the information, but I do know that the retainer number has lowered in the last 5 years tremendously.

I would have to say that . . . some of the teachers want this program to work so hard, and are so interested in it, they may take a little more pains with these children than . . . they did back there when we did not have the program. They know that they have everything to work with now, as far as the child is concerned.

We give them all their inoculation shots from top to bottom, and we start in our preschool program. . . . I might make one comment on the dental. I mentioned that most of the teeth have been filled, or would have been filled, or are being filled.

By this time next year, we should not have a cavity among the first eight grades in school.

We are completely following up on these programs, and I think probably that is the key to it.

It is the followup, and once you define the problem, if you have the money, it is no big chore to solve it. . . .

We found some other things. We found that we have less discipline problems now than we had before. I believe that this is probably on the education of the parent, believing in what we are trying to do for the child, along with the child wanting to attend school and wanting to correct the things that are wrong healthwise.

The Chairman. What about after graduation, Mr. Taylor? Have you also noticed better performance standards on the part of your graduates?

Mr. Taylor. Yes, we have.

The Chairman. Then you had previously gotten?

Mr. Taylor. We have not only noticed a little better performance

standard; we have noticed that a bigger percentage strive to attend college and want to attend. We find that they go to jobs and stick with them. . . .

The Chairman. I am interested in your efforts to deal with the families. I don't quite understand what you do in terms of involving the parents in this program.

Did I understand you to say you go into the homes?

Mr. Taylor. Yes, sir; we go into the home. We sit down with the parents, and we explain this program to them, and we never put it on the scale or even say that, "We are here because you are a needy family."

Our school is accepted in the community, and the parents accept what we talk to them about as the truth.

We talk to them about the vitamin deficiency of the child and the attendance of their child, and, "We think that these meals, even though you are preparing them here at home, and they are offered to the child here at home," and in many cases this may or may not be the truth, "We think that their being at school at 7 o'clock in the morning to eat breakfast and then eating lunch at noon will solve a big problem and help the student's performance so far as the school is concerned," and we found no difficulty at all.

Perhaps it is because most of the people that go in the homes are acquainted and make themselves acquainted with the families. . . .

Senator Yarborough. Mr. Chairman, may I ask a question?

The Chairman. Senator Yarborough.

Senator Yarborough. Superintendent Taylor, in your experience in Texas, have you found family ties are closer and tighter and you have a closer family among the Latinos than among the Anglos?

Mr. Taylor. Yes, sir.

Senator Yarborough. I have been astonished at the ease with which you say you have been able to get the people to get into this, because the Latino, in his personal habits, is very conservative about change, is he not?

Mr. Taylor. Yes, sir.

Senator Yarborough. And you have broken down their cultural patterns that existed right in that geographical area for 200 years by these small children leaving the family?

Mr. Taylor. Yes, sir. . . .

The Chairman. . . . Is there any evidence that what seems to be an excellent school lunch program, school breakfast program, carries over into the home, so that the mothers and fathers become more concerned about nutritional standards, and in fact know more about what constitutes an adequate diet?

Mr. Taylor. Well, we think so. We are getting more mothers up at the school asking the opinions of our home economic teachers in regard to how to prepare the commodity food that they receive, the best way for them, and that their children consume. . . . I certainly know that any time that we put on a participation program with the parents to come to the school and learn how to prepare these things, they do, and they are glad to come, and will work hard in following our instructions as to preparing them. . . .

The Chairman. Do you think that the federal part of the school lunch and other programs that relate to the nutrition of youngsters are generally satisfactory?

In other words, if you had the kind of focal followthrough that you suggested that you have in San Diego, would the existing food programs that the Federal Government provides on the school level be adequate?

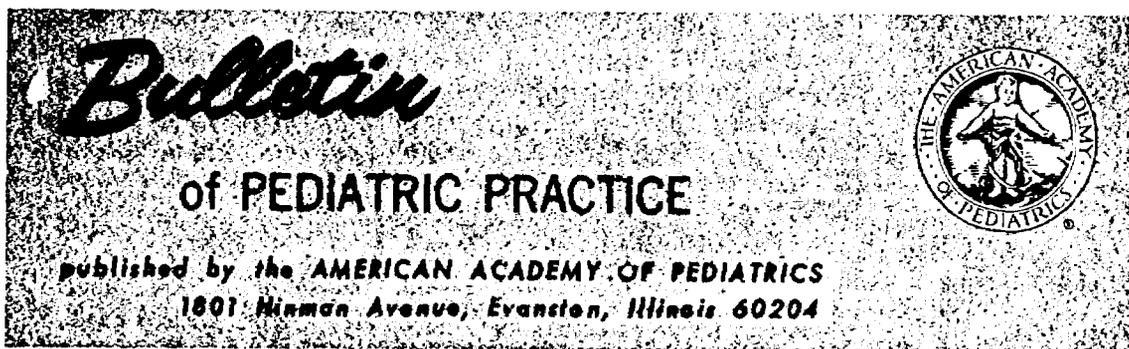
Mr. Taylor. Yes, I think on the school level they are adequate. I think that the most important phase of our . . . solution to the problem . . . is that so many schools might not be using enough of their elementary and secondary money in this field.

We use some 40 percent of our total allotment in health and nutrition, which is quite a lot of money in the program. It has grown to the standpoint it has been such an important part of our curriculum that it has just absorbed the money.

The Chairman. What part of the budget comes to you through the school lunch allocations from the Federal Government?

Mr. Taylor. From the Federal Government? Well, to the school

(Continued on page 14)



Vol. 4 No. 4

November, 1970

Special Issue of Bulletin Outlines Proposals Contained in Report's Final Chapter

Recommendations for Child Health Care Spelled Out in Special Academy Report

The American Academy of Pediatrics was created in 1930 "to foster and stimulate interest in pediatrics and correlate all aspects of the work for the welfare of children which properly come within the scope of pediatrics."

To further this objective, in October of 1967 the AAP Executive Board met in joint session with its Council on Pediatric Practice. At that meeting the Executive Board requested the Council to accept the challenge to develop "a report concerning the future pattern of child health care." The Council accepted this responsibility, and the recommendations which are included in this Bulletin are a result of the work which went into developing The Report on the Delivery of Health Care to Children. The entire Report will be published sometime in 1971.

Previous Study

A previous major report was published by the AAP in 1949. Entitled, Child Health Services and Pediatric Education: Report of the Committee for the Study of Child Health Services, this Report had a significant impact on the development of child care services nationally for it pointed out that a large segment of the childhood population was receiving little or no care. The most notable result of this work, however, was the revitalization of pediatric education, for not only were pediatric departments more adequately funded and staffed as a result of the Report,

but continuing education programs in pediatrics for both pediatricians and general practitioners received renewed emphasis.

Forces

Several sociological forces are now spotlighting continuing inadequacies in the delivery of health care. Among these are 1) the "population explosion" marked by a rapid rise in the number of children requiring care; 2) the increased mobility of our population with special emphasis on the migration from the rural areas to the inner cities, and 3) a group of environmental, social and cultural factors including poverty, inadequate housing, malnutrition, ignorance and prejudice in an atmosphere of growing social unrest, especially among our youth.

Although the recognition of the great influence of these factors on health may come largely from medicine and its related sciences, their elimination will require the universal cooperation of all of the disciplines since the essential strengthening of health services alone, will not, in itself, ensure attainment of the goals set forth in this Report.

It is with these problems in mind, and because of the continuing evidence of a significant lack of health care for many children, that the Executive Board of the Academy, after a 20 year interval, considered it imperative to reassess the adequacy, availability and efficiency of the present method of delivering health

care to children. One of the major purposes of this Report then is the identification, examination and encouragement of methods which show promise in meeting present and future needs for health care.

We must not lose sight of the fact that the Report is intended not only for all deliverers of primary care to children, but also for all others interested in child health care, both within and outside of government circles.

Gratitude

The Report represents not only the result of a two year study by a special committee of the Council. It also represents the culmination of more than five years

of work by the Council on Pediatric Practice and its committees consisting of more than 35 Academy Fellows, as well as the work of 31 contributors of chapters or sections of the Report, and an additional 60 reviewers. This constitutes a composite effort of more than 100 Fellows, all of whom deserve our most sincere gratitude.

Financial support for the Report came from the Association for the Aid of Crippled Children; the Children's Bureau; The Commonwealth Fund; Mead Johnson Laboratories primarily in support of the nine regional conferences which served as background for much of the Report, and the Academy itself.

I. General Considerations

Optimal health care for all children is the goal of the American Academy of Pediatrics. This study of the American system for delivering health care to children was conducted because this goal has not as yet been achieved. The findings of the study document both the strengths and weaknesses of the present system, but inasmuch as this study is primarily concerned with improving child health care, the Report emphasizes the identification of problems and presents recommendations for their solutions.

Because of the current shortages and maldistribution of health personnel, because of the differences in social, economic, and medical problems in the delivery of health care to children in various localities, and because of the improbability of their solution through any single universally applied method of delivering and financing health care, **WE RECOMMEND THAT**

1. A pluralistic approach in both the methods of delivering care and its financing be continued, making use of the most effective current approaches from both the private and the public sectors and incorporating new and

innovative methods as they are proven effective in order to provide family and community oriented comprehensive care for all children.

To accomplish the goal of optimal health for all children, planning on national, regional, state and local levels will be needed. **WE RECOMMEND THAT**

2. Health planning councils carefully review the present health care services for children provided by various national, state, local and voluntary health programs. Such studies should be particularly concerned with (a) identifying the unmet needs; (b) determining the availability of health services to all children; (c) evaluating the adequacy of child health programs to provide comprehensive care, including supportive social programs when needed; (d) determining the quality and the acceptability of child health services, and (e) studying the social and psychological reasons why some present services are not fully used. We further feel that such studies should be particularly concerned with identifying situations where services are duplicated or where jurisdictional restrictions

make them rigid and result in further fragmentation of services.

Because of the importance of children to society, health programs for children require a higher degree of priority. To accomplish this, **WE RECOMMEND THAT**

3. (a) A National Advisory Council on Children be created, responsible to the President; (b) there be set up the Office of Deputy Assistant Secretary for Children and Youth in the Department of Health, Education, and Welfare which will be primarily responsible for the coordination and overview of children's programs, and (c) pediatricians be included in all planning councils considering health programs for children.

II. Factors That Adversely Influence Child Health

There are several major factors which prevent achievement of optimal health care of children. First among these is a group of environmental, social, and cultural factors including poverty, pollution, inadequate housing, malnutrition, ignorance, and prejudice. Poverty is the greatest of these. More recently, we have become increasingly aware of the vast problems resulting from

(Continued on page 15)

(Continued from page 4)

tailed analyses that these birthweight differences are erased when socio-economic conditions are fully equalized. When comparisons can be made within racial groups, it becomes clear that well-off blacks are considerably less prone to prematurity (and by extension to other abnormalities of the reproductive process) than are poor blacks, a relationship equally true for affluent and poor whites.

Disadvantaged Children goes on to examine at some length the question of how poverty produces such excessive reproductive dysfunction among poor women, and concludes that as a result of her economic and ethnic status, and the adverse social patterns associated with it, the poor woman falls on the risk side of the ledger in regard to a whole constellation of factors which can adversely affect reproductive performance—not the least of these being her chronic lesser access to methods for limiting her family. Compared to women in the middle class, as *Disadvantaged Children* puts it, poor women “tend to be less well fed, less well grown and less well cared for before they reach childbearing age. When they reach it they begin to bear children younger, more rapidly and more often, and they continue to bear them to an older age. When such a mother is pregnant both her nutrition and her health will tend to be poorer than that of a woman who is better off, but she will be far less likely to get prenatal care and far more likely to be delivered under substandard conditions.”

Thus, it is as a result of their own exposure to a complex of unfavorable conditions, that poor women experience high rates of reproductive abnormalities; these abnormal reproductive events in their turn expose poor children, even before they have drawn breath, to abnormally high levels of biologic risk.

The Hazards of Infancy

For such children risk is compounded at delivery. Often smaller and in poorer condition at birth than children of the more affluent, infants born into poverty are set down, young and vulnerable, into the same surroundings which have been unhealthy for their mothers. Their urgent need is for a maximally fostering environment—but this need can seldom be met in the substandard and often overcrowded housing available to their families. They are, like all infants, rapidly growing organisms with a primary requirement for adequate nutrition; yet for a variety of reasons the mothers of these infants are often unable to feed them adequately. While the evidence to support such a statement was scattered at the time *Disadvantaged Children* went to press, data from the National Nutrition Survey and a similar study of preschool children has now confirmed on a representative sample of the poor that children in impoverished families are often malnourished from early infancy on, sometimes severely so. The fact is now established, as Dr. Arnold Schaefer, head of the National Nutrition Survey, reported recently that “the poorer you are the more likely you are to suffer from serious malnutrition,” and such malnutrition is particularly serious among young children.

But malnutrition is not the only postnatal hazard to which these children are subject. As a group, poor children receive little or no well-baby care and are thus less likely than children from better-off homes to have been immunized against infective illnesses. Yet their poor nutrition and their generally poor living conditions enhance their vulnerability, while the high levels of infectious disease in the communities in which they live put these children at special risk of exposure to infection. Not surprisingly, in many cities

certain severe infectious illnesses occur almost exclusively in ghetto areas and it is in these same overcrowded and underserved neighborhoods that epidemic flare-ups occur.

Moreover, despite the fact that poor children—and poor minority group children in particular—are sick more often and more seriously than children who are not poor, they are less likely to stay in bed, to see a doctor or to be hospitalized for illness than are children in better-off families, and at school age they are less likely to stay out of school because they are sick. Among such families, medical care is likely to be sought, as is dental care, only when an emergency demands it. Thus, chronic handicapping conditions often go untreated and teeth go unfilled; eyes and ears go untested, vision and hearing uncorrected. “Even on the basis of the scattered but provoking evidence that is available,” *Disadvantaged Children* concludes, “we can fairly infer that there exists a vast though largely uncharted region of undernutrition, malnutrition and disease among the poor children in this country. At the very least it is clear that the infants and children in poor families are more often hungry, more often and more seriously sick, suffer more accidents and receive less frequent and less skilled care both in sickness and in health than do children in families who are not poor.”⁶ Thus it is quite clear that “the environments in which disadvantaged children develop from conception on are far less supportive to growth and health than are those of children who are not disadvantaged, and . . . the differences are profound and prolonged.”⁷

Health and Learning

It is a truth beyond disputing that such sorry conditions of life ought not to exist for any of the children of the richest nation the world has ever known. Since they do, however, it is important to ask what the implications are, for education, of this pattern of poverty-induced ill-health. In order to answer such a question it is necessary to consider the different mechanisms whereby the biological hazards of poverty may induce intellectual handicap, since each of these may imply a different response from the schools.

There are at least three different major routes by which poor children's exposure to hunger and ill-health might affect their school achievement. We can begin to consider them by asking a question framed as follows: can we expect some excess number of poor children to suffer actual physical or neurological damage as a consequence of their excessive exposure to (1) abnormalities of the reproductive process, (2) hunger, sickness and poor health care during the preschool years, or (3) both of these sets of hazards consecutively? Such a question is easily answered. Of course we can; the infant mortality statistics themselves suggest as much. For as *Disadvantaged Children* points out “a high rate of infant death in any population indirectly suggests survival with increased risk of damage in the survivors. To know which are the killing conditions of life is to know which are the maiming ones; for in life as on a battlefield, not all the casualties die.”⁸

In regard to the aftereffects of reproductive complication, certain facts are clear. Compared to normal pregnancies and births, pregnancies marked by complications or illnesses, and births which are difficult or premature (or both), will result in the production of an excess number of children who suffer from major physical or neurological damage—cerebral palsy, blindness, epilepsy, severe mental defect. Poor children, exposed as they are to their mothers' higher

(Continued on page 10)

(Continued from page 9)

rates of reproductive abnormality will thus experience higher rates of such severe damage than will children whose mothers are not poor.

In addition, the kinds of hostile postnatal environments to which we have already alluded will also produce a certain number of major casualties among the children exposed to them. To quote *Disadvantaged Children* once again, "children overexposed to accidents or illness, or to the effects of early or persistent nutritional deprivation, are clearly more likely to suffer direct interferences with either the development or the integrity of the nervous system, whether from trauma, from poisoning, or from a variety of infective agents, nutrient lacks, or biochemical abnormalities than are children leading more protected, well-nourished and medically supervised lives."⁹ To give but one very current example: Ingested lead can cause serious brain damage. During the first four months of 1970 there were 260 cases of lead poisoning in New York City alone, almost exclusively among small children from families in poverty areas of the city who had eaten lead-containing paint flaked-off from the walls of the decaying buildings which were their homes. It has been estimated that between 225,000 and 300,000 children in the United States have elevated levels of lead from such sources in their blood; and chronic lead poisoning is simply one of the more exotic hazards to which the brains of children living in impoverished circumstances are exposed.

To acknowledge that poor children have been disproportionately exposed to high levels of risk both before and after birth is to recognize that they have doubtless suffered a disproportionate share of serious physical or neurological damage. The shape of the school's obligation to such seriously handicapped children has already been defined — as "special education" — even if it has not to date been successfully met. In view of the schools' present limited success with remedial programs notwithstanding, it is clear that many handicapped children, even those with significant degrees of brain damage, can be brought to relatively high levels of competence if their degree and type of dysfunction are mapped and appropriate educational measures are devised to "work around" their handicaps and exploit their areas of strength.

To guarantee that all children who need special education get it, and that they get what they need within it, will require careful assessment of every pupil who exhibits a learning deficit. Ideally, of course, every child we seek to educate — not just those with learning problems — should have his special characteristics as a learner carefully assessed. We live, alas, in a less than ideal world; given the nature of the environments in which disadvantaged children grow from conception onward, we must at least attend carefully to the possibility that among these children educationally-significant neurological or physical handicaps may underlie some problems which have heretofore been defined as deriving from a globally defined "low IQ" or from inadequate or inappropriate socialization.

Damage and Deficit

It is important to recognize, however, that even if, as a result of such a redefinition, substantial numbers of children were newly classified as neurologically handicapped, this kind of handicap would still account for a relatively small percentage of the learning retardation which concerns us. Consider the following figures. In preparation for their study "School Achievers from a Deprived Background,"¹⁰ Davidson

and Greenberg went to the slums of Harlem to locate children who had managed, despite their deprivation, to succeed in school. In terms of the study, success meant merely being up to grade level in reading and mathematics. To find 80 children who were up to this modest level of achievement, these investigators examined the elementary school records of 1,331 children. The other 1,251 were below grade level — in other words, for every one school success there were fifteen children who were failure in school. When the whole group of children was given a routine physical examination, 10% of them were judged to suffer from some degree of neurological impairment. As an indicator of the extent of school failure in this group attributable to neurologic defect, this 10% figure may be very inaccurate. On the one hand, it may be too low because of the cursory nature of the physical examination; on the other hand, it may be too high since not all impairments necessarily interfere with learning. Even if the figure is too low, however — even if at the extreme we assume that it is too low by half — the fact remains that significant neurological impairment of even 20% of this group would still help to account for the retardation of only about one-fifth of the children who were below grade level.

As *Disadvantaged Children* points out, therefore, the critical issue is not only whether somewhat more children than we had previously thought are profoundly damaged as a consequence of their biological histories, but whether there are large numbers of other children, apparently undamaged, who come to school handicapped as learners as a direct or indirect consequence of their exposure to a succession of physiological insults. It was suggested earlier that there were at least three ways in which the biological hazards of poverty might produce educational handicap. The first of these has already been discussed: excessive exposure to acute physical hazards can be expected to produce an excessive incidence of serious damage among "disadvantaged" children. What is here being pointed out is that educational handicap among poor children may also arise from exposure to a succession of lesser biological assaults which succeed and reinforce each other.

There is good evidence to suggest that such a piling up of insult does occur — with adverse intellectual consequences — where reproductive complications are concerned. Of the major reproductive abnormalities, only prematurity has been followed up in sufficiently large populations so that subtle damage which may result from it can be convincingly demonstrated. Considering the evidence from several long-term studies of low birthweight infants, *Disadvantaged Children* concludes that the single circumstance of being underweight at birth probably does not result in a significant intellectual handicap for children who grow up in advantaged homes. Except for the relatively small number of children who are extremely underweight — that is below three pounds — at birth, the benefits of a privileged infancy can apparently overcome the initial handicap of low birthweight. For the child born prematurely into poverty, however, prematurity is a stress uncompensated for in postnatal life; for children from the poorest homes, premature birth is associated with a significant depression in IQ. "Low birthweight becomes a risk condition," as Birch has written, "largely for otherwise disadvantaged children. For one part of the population, low birthweight seems to be a condition that can push an individual over the brink, whereas for many other parts of the population, not under additional conditions of stress, it appears to be a relatively trivial event."¹¹

(Continued on page 11)

(Continued from page 10)

Life After Birth

Life in the rotting central cities and in the less compact, but no less deprived rural and suburban slums, is a hazardous affair, even for the child who starts out even—the child who, though poor, is the fortunate product of a normal pregnancy and birth. It was earlier pointed out that some of the environmental hazards of an impoverished infancy may produce frank injury to the nervous system; but it must be emphasized that neither widespread starvation nor brain-damaging infection need be demonstrated in order to support the conclusion that hunger and disease are crippers of the minds of millions of American children. Indeed, it is distressing that so much of what has been written, especially about hunger, has implied that the biological hazards of poverty are damaging only when they leave "material" traces. Extensive attention has been given in recent months to the possibility that there exists in the United States widespread "brain damage" as a consequence of inadequate nutrition among poor children. There is no doubt whatsoever that severe nutritional deficiency does occur among some infants and children. Cases of kwashiorkor and marasmus, the two classic diseases of protein and calorie malnutrition, have on occasion been found in this country. There is also no doubt that nutritional stress of this magnitude wreaks havoc with the body chemistry, and that if it occurs early enough such stress may permanently alter the size and composition of the brain—though what such alterations imply for subsequent functioning is as yet unknown. But the fact is that there is no evidence at all that starvation of this magnitude is common in this country, even among the most impoverished, a fact which the National Nutrition Survey has to date confirmed.

What is true is that there are unacceptably large numbers of children who suffer from almost chronic hunger, and the almost chronic state of ill-health and frequent infection which accompany it. The adverse intellectual effects of such a childhood "need not be primarily or even most significantly the result of 'brain damage', but rather the consequences of any or all of a number of possible indirect effects."¹² Of the ways in which *Disadvantaged Children* suggests that poor health and malnutrition in infancy may operate to produce intellectual retardation at school age, two can be mentioned here. The first of these has to do simply with the loss of learning time. A child who is hospitalized, bedridden, housebound, or simply inactive because of illness will lose time for contact with his playmates, his neighbors, his world. The middle-class child, whose illnesses are occasional and who recovers from them to optimal health in a maximally fostering environment, may make up the lost learning time. The poor child, who seldom if ever experiences really good health and whose acute illnesses are likely to be more frequent and more serious, may find catching up out of the question.

A second source of learning retardation is the altered character of the sick child himself. He not only loses contact with the world because he is less active, he loses contact because he is less responsive. "One of the first effects of ill-health is an alteration in the child's responsiveness to stimulation and the emergence of various degrees of irritability or apathy."¹³ An irritable or apathetic child is always a less pleasant stimulus object than a happy one; to adults who are likely already overtaxed, he may be positively aversive. Thus, a child's own reduced responsiveness to the environment, human and otherwise, may be reinforced by the human environment's reduced responsiveness to him.

If such a pattern persists for some time, it may result in significantly diminished opportunities for learning.

As a result of experiences such as these, children who have been frequently hungry and sick in childhood may reach school age as handicapped learners, handicapped not by some physically measurable damage, but by their histories of reduced interaction with the environment. When such children come to school significantly retarded in learning, it will not be only because certain critical experiences were absent from their environments. Many a child will be "experientially deprived" because when learning experiences were there to be had, he was not always fully able to exploit them.

Such a statement is almost impossible to "prove"; that is, it is exceedingly difficult to isolate these specific consequences of poverty simply because so many other circumstances unfavorable to optimum mental development turn up, along with hunger and poor health, in impoverished families. Moreover, it has tended, in practice, to be difficult to demonstrate the "aftereffects" of early biological stress for another and even more poignant reason, that is because the same conditions which are threatening to the health of poor children in infancy tend, more often than not, to persist into the school years.

This is a fact critical to recognize if we are to be educationally effective. If children's early and repeated exposure to biological stress has caused them to fall behind their peers in learning skills, it is not inconceivable that such retardation can be fully made up by appropriately devised "compensatory programs." But it is exceedingly doubtful whether any such programs can succeed in the face of hunger and ill-health which are not merely historical but urgently contemporary. To focus on the effects of deprivation in early childhood as if that deprivation somehow ended at the schoolroom door, is to indulge in wishful thinking, for it is children's present deprivation, not only their history of it which represents the third route through which poverty may interfere with school achievement.

"It would be misleading," as *Disadvantaged Children* puts it, "if one were to conclude . . . that malnutrition and illness were significant hazards to children only in early infancy or only as a consequence of their "permanent" effects. It must not be overlooked that the child's present hunger and illness also immediately affect his level of attention, his interest, his motivation to learn—in short his achievement in the classroom. Unless we intend to feed children today it may be interesting, but unimportant to their prospects, to decide whether the effects of yesterday's hunger will continue to affect their mental development tomorrow. Since mental development is a process, perhaps only relatively more vulnerable to interruption at one point than at another, it is difficult to imagine that anything in the environment which interfered for a significant time with learning could fail to affect mental development. The real children in our classrooms are not like animals in the laboratory who can be rehabilitated at times appropriate to their development and convenient to a researcher. In the real world it may actually be quite unimportant whether the effects of nutritional stress are organic, biochemical or emotional. Whether or not damage is permanent must be irrelevant in the face of a deprivation which is; the same children whose mothers were ill-fed and unready for pregnancy, who are born into poverty and survive an infancy of hunger and illness are seldom miraculously saved in the third act."¹⁴

It would seem essential then that the schools do something more than watch with interest while the scientists are

(Continued on page 12)

(Continued from page 11)

determining just how persistent are the intellectual effects of earlier malnutrition and illness. While the measurements are proceeding, the schools could at least see to it that no child presently sits in the classroom too hungry, too sick or too exhausted to learn. Unfortunately it will probably not be enough for the schools simply to lend their moral support to someone else's efforts to provide for children's physical needs. If children are to be made ready for learning today, then the schools will doubtless have to accept the responsibility of meeting whichever of their basic needs are not being currently met. What is being suggested is quite straightforward, namely that the schools provide, as a matter of course, breakfast and lunch for children who come to school hungry, rest corners for children who come to school tired or ill, physicians to attend to urgent physical problems, and systems for seeing to it that chronic handicapping conditions are actually treated, not merely acknowledged and referred.

As an example of what at least one school system has done, we have reprinted elsewhere in the *Bulletin* the loving—no other word seems appropriate—account by the Superintendent of Schools in San Diego County, Texas, describing the compensatory school programs in his district. To Superintendent Taylor and his staff it seemed obvious "that no child could be educated if he were hungry, if he felt bad, if on occasion he got sick more frequently than other children." So the district used 40% of its Title I funds to take care of the children's physical problems, "getting these children ready to be taxed to the maximum."^{*}

Now a number of objections might be raised to the notion that the schools should provide extensive health and feeding services for children. Not the least of these is a financial one. The schools are, by their own accounts, already taxed to the limit providing special programs for disadvantaged children. What possible justification can there be for adding yet another responsibility to those the schools already bear? On a cost-benefit basis, it might well be worth finding out whether biological services would pay their own way. Superintendent Taylor's testimony suggests that such services might lower the incidence of truancy and tardiness, cut down on behavior problems and substantially reduce the number of children retained in grade. As the Coleman report showed, schools have certainly not always been getting their money's worth from the programs they are presently investing in. One of the significant findings of that study was that school achievement was not very markedly affected by the amount of money a given district was spending per pupil. Recently this finding was confirmed on a local level in a study sponsored by the First National City Bank of New York City. That study found that in a group of New York schools serving predominantly black and Puerto Rican pupils, the per pupil costs ranged from a low of \$529 to a high of \$1,560. Yet there was no evidence that improvement in reading score was correlated with higher per pupil expenditures. It seems so obvious as to need no emphasis that no matter how brilliant or innovative the teaching strategy, and no matter how well-tested the materials, a child distracted by his own hunger, illness or fatigue will be a less attentive and eager learner than one who is not. Since it is clear that not all of the significant variables have been accounted for, perhaps, some of the funds which are presently failing to make a major difference in the way children learn could be used to attend to their urgent physical needs.

^{*}See pg. 5

A second objection to providing health and nutrition services to children through the schools would probably be that meeting such needs falls outside the mandate of the school, that it is a "welfare" task, not an educational one. If "welfare" is defined as anything that is done to make a child comfortable, it could as well be argued that heating school buildings in winter is also a welfare task since we have no evidence that children need to be warm to learn any more than they need to be well or well-fed. But a more realistic answer to questions about the proper function of the school is that many schools are presently performing a "welfare" function in feeding children lunch. There is little educational justification for feeding children lunch—indeed there is less educational justification for feeding children lunch than there is for feeding them breakfast—a fact that the Panthers with their breakfast programs, have understood better than the rest of us. Most learning in school takes place before lunch, and while a meal might theoretically serve as a reinforcer for a hungry child, getting lunch is not—and probably should not be—made contingent upon a pupil's morning performance in the classroom. If we can feed hungry children only one meal, then let us not make them sit through a morning of classes on an empty stomach. Let us feed them breakfast, teach them something and send them home hungry. Maybe that way, they'll at least want to come back to school tomorrow.

There is, of course, one last argument which can be advanced against the notion that the schools should provide for children's physical needs—that is that we can't prove it will help them learn. The successes reported by Superintendent Taylor and a few others are, in scientific terms, merely anecdotal assertions that good health does make a difference. The hard scientific evidence to support the notion that children's present biological condition correlates with their learning is beset, described as fragile. There are a few studies—one fairly old one linking blood levels of Vitamin C to IQ, two more recent ones evaluating the effect of iron-deficiency anemia on various measures of functioning. For what it is worth, they have all tended to show that children who were better nourished did better. But the fact remains that there are, so far as I have been able to determine, no controlled studies which show whether the child who is very hungry is unable to work as well in school as one who is not hungry—or even whether he is just unwilling to. We have no convincing evidence to sustain the notion that too little sleep or too many cavities actually hinder the learning process. That is to say we cannot at the moment prove, on the basis of scientific evidence, that children would profit educationally if they were provided with all the health and nutrition services which they needed.

This being the case, there is one question we need to ask. Is it rational (or humane) to attempt to teach anything at all to a child who is hungry or sick or tired or all three? If it is not, then we shall probably have to go ahead and feed hungry children breakfast, and put sick or exhausted children to bed, and take care of the eyes and ears and teeth and other broken parts of children whose health has been neglected, just because it seems like the only sensible thing to do, and not because we are convinced beyond a shadow of a doubt that such an approach will result in a 23.6% improvement in their SAT scores. At the very least we will then be teaching these children—and their parents—that someone cares about their hunger, their fatigue and their illness—which is much more positive than some of the things they are learning now.

Footnotes

- ¹ IRCD Bulletin, Vol. 1, No. 2, March, 1965.
- ² IRCD Bulletin, Vol. 5, No. 4, Fall, 1969.
- ³ Eckstein, Gustav, *The Body Has a Head*, New York: Harper & Row, 1970.
- ⁴ Birch, H. G. and J. D. Gussow. *Disadvantaged Children—Health, Nutrition and School Failure*. New York: Harcourt, Brace & World—Grune & Stratton, 1970. 322 pgs.
- ⁵ Ibid. pg. 10.
- ⁶ Ibid. pg. 260.
- ⁷ Ibid. pg. 266.
- ⁸ Ibid. pg. 13.
- ⁹ Ibid. pg. 260.
- ¹⁰ Davidson, Helen H.; Judith W. Greenberg. *School Achievers from a Deprived Background*, New York: Association of Education Services Corp., 1967.
- ¹¹ Birch, H. G. "Research Issues in Child Health IV: Some Philosophic and Methodologic Issues," *Pediatrics*, 45: 874, May, 1970.
- ¹² Birch & Gussow, pg. 261.
- ¹³ Ibid. pg. 262.
- ¹⁴ Ibid. pg. 262-263.

INFORMATION RETRIEVAL CENTER ON THE DISADVANTAGED

The IRCD BULLETIN, a publication of the ERIC Information Retrieval Center on the Disadvantaged, is published five times a year and usually includes status or interpretive statements, book reviews, and a selected bibliography on the center's special areas. Persons may ask, in writing, to be placed on the subscription list. The center also publishes the ERIC-IRCD Urban Disadvantaged Series and the Collegiate Compensatory Education Series, a series of bibliographies, reviews, and position papers. Numbers in this series will be announced in the IRCD BULLETIN and can be obtained by request. Subject areas covered by IRCD include the effects of disadvantaged environments; the academic, intellectual, and social performance of disadvantaged youth; programs and practices which provide learning experiences to compensate for the special problems and build on the characteristics of the disadvantaged; programs related to economic and ethnic discrimination, segregation, desegregation, and integration in education; and materials related to ethnic studies.

The center is operated under a contract with the Educational Resources Information Center (ERIC) of the U.S. Office of Education and receives additional funds from the College Entrance Examination Board, Teachers College, Columbia University, the Division of Equal Educational Opportunities of the U.S. Office of Education, and other agencies for special services.

Edmund W. Gordon
Director

Erwin Flaxman
Assistant Director

Supplementary Bibliography for the Articles.

See page 19 for ordering information.

- Abelson, Philip H. "Malnutrition, Learning and Behavior," *Science*, 164, 17, April 4, 1969.
- Baumgartner, Leona. "Health and Ethnic Minorities in the Sixties," *American Journal of Public Health*, 55, April, 1965, pp. 495-498.
- Bettleheim, Bruno. *Food to Nurture the Mind*, Washington, D. C.: The Children's Foundation, 1970.
- Birch, Herbert G. "Health and the Education of Socially Disadvantaged Children," *Journal of Developmental Medicine and Child Neurology*, 10, 1968, pp. 580-599.
- Birch, Herbert G. "Research Issues in Child Health IV: Some Philosophic and Methodologic Issues," *Pediatrics*, 45, May, 1970, pp. 874-883.
- Chase, H. P.; Martin, H. P. "Undernutrition and Child Development," *New England Journal of Medicine*, April 23, 1970, pp. 933-939.
- Christakis, G.; Miridjanian, A.; Nath, L.; Khurana, H. S.; Cowell, Katherine; Archer, M.; Frank, O.; Ziffer, H.; Baker, H.; James, G. "A Nutritional Epidemiologic Investigation of 642 New York City Children," *American Journal of Clinical Nutrition*, 21, January, 1968, pp. 107-126.
- Clifford, S. H. "High Risk Pregnancy 1. Prevention of Prematurity the Sine Qua Non for Reduction in Mental Retardation and Other Neurological Disorders," *New England Journal of Medicine*, 271, July 30, 1964, pp. 243-249.
- Coles, Robert. "Lives of Migrant Farmers," *American Journal of Psychiatry*, 122, September, 1965, pp. 271-284.
- Craviolo, J.; Delicardie, E. R.; Birch, H. G. "Nutrition, Growth and Neurointegrative Development: An Experimental and Ecologic Study," Supplement to *Pediatrics*, 38: 2, Part II, August, 1966, pp. 319-372.
- Dairy Council Digest. "Malnutrition in Early Life and Subsequent Mental Performance," 39, May-June, 1968, pp. 13-16.
- French, J. G. "Relationship of Morbidity to the Feeding Patterns of Navajo Children from Birth Through Twenty-four Months," *American Journal of Clinical Nutrition*, 20, May, 1967, pp. 375-385.
- Frisch, Rose I. "Present Status of the Supposition that Malnutrition Causes Permanent Mental Retardation," *American Journal of Clinical Nutrition*, 23, February, 1970, pp. 189-195.
- Griswold, D. M.; Cavanagh, D. "Prematurity—the Epidemiologic Profile of the 'High-risk' Mother," *American Journal of Obstetrics and Gynecology*, 96, November, 1966, pp. 878-882.
- Gutelius, Margaret F. "The Problem of Iron Deficiency Anemia in Preschool Negro Children," *American Journal of Public Health*, 59, February, 1969, pp. 290-295.
- Harper, P. A.; Wiener, G. "Sequelae of Low Birthweight," *Annual Review of Medicine*, 16, 1965, pp. 405-420.
- Harrell, Ruth F.; Woodyard, Ella R.; Gates, A. I. "The Influence of Vitamin Supplementation of the Diets of Pregnant and Lactating Women on the Intelligence of Their Offspring," *Metabolism*, 5, September, 1956, pp. 555-562.
- "Health and Poverty," *American Journal of Clinical Nutrition*, 21, September, 1968, pp. 883-886.
- Hopwood, H. H.; Van Iden, S. S. "Scholastic Underachievement as Related to Subjunctive Physical Growth," *The Journal of School Health*, 35, October, 1965.
- "Hunger, USA: A Report by the Citizens' Board of Inquiry into Hunger and Malnutrition in the United States," Washington, D. C.: New Community Press, 1968, pp. 1-100.
- Hurley, R. L. *Poverty and Mental Retardation: A Causal Relationship*, New York: Random House, 1969.
- Klinger, A. D.; Mendelsohn, R.; Albers, Jaqui. "A Reply to Dr. Herbert Pollack re: Hunger USA," *American Journal of Clinical Nutrition*, 23, June, 1970, pp. 677-683.
- Kotz, Nick. *Let Them Eat Promises. The Politics of Hunger in America*, Englewood Cliffs, New Jersey: Prentice Hall, 1969.
- Kubali, A. L.; Katz, M. M. "Nutritional Factors in Psychological Test Behavior," *Journal of Genetic Psychology*, 96, June, 1960, pp. 343-352.

(Continued on page 20)

(Continued from page 6)

I would say probably 25 to 30 percent of the total operation.

The Chairman. Is funded by Federal money?

Mr. Taylor. Yes, sir; not counting the elementary and secondary.

The Chairman. I understand. And of that elementary and secondary education money you put about 40 percent into food and health programs?

Mr. Taylor. Yes, sir. . . .

Senator Yarborough. Just one more question.

Superintendent Taylor, how does a school superintendent go about convincing the school board and all the town regency that they ought to accept responsibility for feeding all these school children?

Mr. Taylor. I don't think that the superintendent can do it, Senator. I think that the superintendent must convince his staff, the teachers.

The school board, of course, in my instance, are men that believe in this. They think that this is an obligation, that when people are hungry, and the school district can do something about it for children to benefit, this should be done.

Senator Yarborough. Do you think the main problem is his own staff and all the people who work with him?

Mr. Taylor. Exactly. If you can educate these people . . . from the standpoint of getting them to honestly convince themselves, and you helping them be convinced that their job is not just the job of teaching the children that can be taught, but a job of getting all the children to where they can be taught . . . and selling them on dedication, they will sell the community.

When the parents see teachers coming to work at 7 in the morning and leaving at 5 or 6 in the afternoon, when they see the cafeteria open before daylight and close after dark, when they see bus routes start at 5 and get back home at 8, and we pick up first graders before daylight and let them off after dark, knowing well and good that they are in good hands at the school district, they will be watched out after, not only toodwise, but healthwise, and we will do our best to educate them.

This is no problem. This sells itself.

Like everybody, you have to have a certain amount of dedication.

Senator Yarborough. This goes beyond the conventional pattern of what teachers have done for generations, does it not?

Mr. Taylor. Yes, sir. This is not what teachers have done for generations, or want to do during this generation, by and large, and I don't mean in any way to cast reflections upon the teaching profession as a whole but I do know that I am blessed, and our community is blessed, with some dedicated people.

Senator Yarborough. Last year we had our migratory labor hearings in Rio Grande City, (near your district). . . . There the superintendent told of a turnover of about a third of his staff every year, and the country was so impoverished the teacher would teach a year and leave with despair.

As I understand you, your teachers stay. They work in the homes, and they work after hours, and they work long weeks to help put this program over.

Mr. Taylor. Yes, sir, our turnover in our school district teacher-wise is less than 2 percent, if that high. . . . and in my opinion it would be well to say that our teachers are paid the minimum foundation salary.

Senator Yarborough. In other words, you don't have any high pay. You don't have an oil field in there that lets you have a tax base to pay higher salaries.

Mr. Taylor. No, sir.

Senator Yarborough. The salaries are very uneven as to school districts in Texas, are they not?

Mr. Taylor. That is correct.

Senator Yarborough. If a school district has an oil field in it, it pays salaries far beyond the salaries the teachers get in other districts, don't they?

Mr. Taylor. That is correct. We have not used any of the Federal programs to raise anybody's salary prior to the program.

Senator Yarborough. You have done all this with the very minimum of money in this school district, one of the school districts that is right on the bedrock with minimal money, have you not?

Mr. Taylor. Yes, sir. We think we have

Senator Yarborough. I think we have one of the most tremendous successes that I have heard of anywhere in the whole southern part of the United States, along the Mexican border from Brownsville, Tex., to San Diego, Calif.

That is the poverty area of the United States, where the income is lower than any other part.

Mr. Taylor. I appreciate those remarks, Senator. I don't think that it is anything that we particularly did, outside of just applying the services that were available through the programs to the children, and seeing to it that they benefited out of them the most they could.

The Chairman. Thank you very much, Mr. Taylor.

I personally think you have described an almost unique situation here this morning. I know every member of the committee is impressed by what you have been able to accomplish in your schools. . . .

Mr. Taylor. Just for the record, Senator, I want it understood that it is not me. It is the people of that community. They are genuinely interested in this program, and teachers.

Senator Yarborough. Mr. Chairman.

The Chairman. Yes, Senator Yarborough.

Senator Yarborough. You know, I think it is not only unique, but almost an ideal situation, kind of a dream, the way the relationship of teachers ought to be with the children and the community in an educational system.

"It is essential to keep in mind that intellectual development does not take place in relation to some artificially isolated segment of the environment—the verbal environment, the social environment, the cognitive environment—but in relation to the child's total environment, physical as well as psychological, and prenatal as well as postnatal. The mind, we would once more observe, is an artifact of the workings of the brain, which is a part of the body. Given a wretched enough physical environment neither the body nor its brain will grow and develop normally—nor will the mind."

Herbert Birch and Joan Gussow
Disadvantaged Children
pp. 266.

National Center for Research and Information on Equal Educational Opportunities

ERIC-IRCD has received a grant from the Division of Equal Educational Opportunities, which administers Title IV of the Civil Rights Act of 1964 within the U.S. Office of Education, to serve as a national clearinghouse to process information on segregation and desegregation efforts in the country's public schools.

It is felt that the long history of concern with the patterns by which ethnic groups are segregated and/or integrated for purposes of schooling and the relationships between these patterns and school achievement have resulted in an enormous body of experience and information in a wide variety of documents. Although many of these documents are readily available, others are less so or unavailable to the general reader.

The new Center will undertake the task of identifying and acquiring the multitude of documents concerning ethnic segregation and integration in public education from 1900 to the present.

The documents will be analyzed, and the most pertinent ones will be abstracted and processed for entry into the ERIC system, a national network for the collection of documents on different topics and problems concerning education.

environmental pollution, be it from the air, the water, or from radiation or dangerous drugs. The recognition of the influence of these factors on health may come largely from medicine and related sciences but their elimination requires that the socio-political structure of American society determines that they are evil and that they must be eliminated, despite the monetary cost. Inasmuch as the essential strengthening of health services will not, in itself, ensure the attainment of the goals set forth in this *Report*, **WE RECOMMEND THAT**

4. All levels and facets of government join with the public and the health professions to identify, attack, reduce, and eliminate the many environmental factors which are a deterrent to optimal health. Legislation, education of the public, and a massive financial investment will be needed.

III. Patterns of Primary Child Health Care

A. Private Practice: Recognizing the importance of the services rendered to children in the United States by primary physicians in private practice, this *Report* included a sampling of the services presently being delivered by Fellows of the American Academy of Pediatrics.

The most striking findings of this phase of the study were that: (1) increasing numbers of pediatricians are aligning themselves in multidisciplinary groups; (2) studies are needed to determine whether or not group practice, in addition to providing convenience and potential economy for patients and third party payers, also guarantees the communication and cooperation between physicians which is necessary to provide continuous and comprehensive family-oriented child health care; (3) there are many new

and innovative methods being developed to improve the efficiency of services rendered in private offices, through the use of which more patients can be more effectively served by the same number of physicians; (4) through the proper use of physician support personnel, it is possible for the pediatrician to extend his services to a significantly larger number of children; (5) a significant number of pediatricians, and presumably other primary care physicians, are not making adequate use of supporting personnel to extend the quantity and quality of the care they deliver, and (6) few pediatricians practice in areas of economic deprivation. In view of this, **WE RECOMMEND THAT**

5. Organized medicine, medical schools, and the government take the steps necessary to insure that all practitioners delivering primary health care to children be appropriately informed about the importance of increasing their quantitative and qualitative effectiveness in delivering comprehensive child health care by (a) appropriate and adequate usage of physician support personnel; (b) development and utilization of technological, administrative, and operational improvements, and (c) improved communication and cooperation between those delivering primary health care to various family members, whether it be in group practice or solo patterns.

B. Public Medical Care Programs: This study of the American child health care system encompassed a review by means of site visits of selected public medical care programs, notably Maternity and Infant Care Projects, Children and Youth Projects, and Neighborhood Health

Center Programs. These experimental projects have been characterized by the development of new partnerships between the federal government, medical schools, state and local health departments, practicing physicians and consumer groups. They are providing comprehensive health care to large numbers of young mothers and children, especially in inner city areas. Here they have created new services and have made existing health care delivery systems more responsive to current needs. Therefore, **WE RECOMMEND THAT**

6. Categorical funds-in-aid for the support of Maternity and Infant Care Projects and Children and Youth Projects be continued until replaced by providing more effective continuous, comprehensive family-oriented care programs.

7. Maternity and Infant Care Programs and Children and Youth Programs be consolidated at the local level and, where possible, be attached organizationally to community health centers to serve as a basis for family-centered programs.

8. Additional community health centers be established in areas of need, and that they give first priority to the health needs of young people.

9. State Maternity and Child Health and Crippled Children's programs, as well as programs for the mentally retarded and emotionally disturbed be modernized, integrated, and given increased financial support so that they, in turn, can provide technical assistance to institutions and practitioners caring for these children.

C. Hospital Outpatient and Emergency Room Programs: The study noted a very rapid expansion of the demands placed upon both hospital outpatient and

emergency room programs. Such expansion has not only placed extreme strains upon facilities and staffs, which were often already inadequate, but has also tended to lower the quality and increase the expense and fragmentation of the delivery of care. Therefore, **WE RECOMMEND THAT**

10. Careful studies be made, not only of the patients presently being served by these programs, but also of the health needs of their communities, so that there may be full integration of areal private and public facilities to achieve the goal of efficient, effective, and available comprehensive health care.

D. Dental Care Programs: This section of the *Report* emphasizes the generally recognized fact that very large numbers of children in the United States are not presently receiving adequate preventive and corrective dental care. Therefore, **WE RECOMMEND THAT**

11. (a) There be provided improved education of the public and the health professions, with special emphasis on young children, stressing the importance of preventive and corrective dental care embracing, first, the use of fluoride in community drinking water; second, greater attention to the teeth during the examination of children; third, the value of regular visits to the dentist, and fourth, other prophylactic measures to prevent dental decay. (b) The more general acceptance of the concept that dental services are an integral part of child health care, and that a higher degree of cooperation be achieved between dentists and other members of the health professions.

IV. Health Care of Special Groups of Children

A number of identifiable groups of children do not now have access to the continuous, comprehensive care provided by physicians serving middle class American families. In fact, large numbers of our children, particularly those living in remote rural areas or in urban ghettos, can only obtain health care for acute and serious illnesses, and even this is done with difficulty. The lack of health care depends upon many factors which are mainly social and financial, and they frequently overlap. These include (1) poverty; (2) race or place of origin, (3) place of residence, including foster homes and institutions for the delinquent, the mentally ill and the retarded; (4) place of residence, as in the case of children living in sparsely populated rural areas; (5) lack of legal residence (e.g., children of migrant workers) who, therefore, lack local, state, or national recognition of responsibilities ordinarily accepted for legal residents, and (6) chronic illnesses or handicaps.

Additional overlapping factors are (7) the dearth of and maldistribution of physicians, allied health personnel, and medical facilities, and (8) the unwillingness on the part of the tax-paying public to accept the financial support for needed programs because they either do not know of their need or do not appreciate their importance. Therefore, **WE RECOMMEND THAT**

12. Special emphasis be given to meeting the health needs of these groups of children identified through association with any of the first six factors enumerated in the preceding paragraph.

The needed measures to provide this emphasis include

(a) new or amended health legislation aimed at providing continuous, comprehensive health care of high quality to these groups of children; (b) implementation, including adequate funding and proper use of existing, new or amended health legislation to reflect the focus on these groups; (c) development of social and economic incentives for physicians and other health personnel to work with these children in the areas in which they live; (d) development of new types of allied health personnel, such as locally recruited health aides, to help overcome barriers of culture and language which so often interfere with acceptable and effective delivery of health care to certain groups; (e) attempts to solve the same problems through the recruitment of medical students and other health workers from these groups; (f) the integration of private and public health care efforts to avoid expensive and professionally frustrating duplication, and (g) the development and use of day care, pre-school educational and school health programs as particularly effective places for carrying out preventive health and health education programs, including both medical and developmental screening among the children in these special groups.

V. Factors Determining the Availability and Quality of Child Health Care

A. Pediatric Education: The information collected in this study amply demonstrates that the American health care delivery system for children is presently lacking adequate numbers of professional persons who are available, accessible, and ac-

ceptable to those in need of care. Although there is a shortage of all types of health workers, it is particularly apparent that the number and distribution of physicians who provide primary care is inadequate. Therefore, **WE RECOMMEND THAT**

13. There be an expansion in the supply of physicians to meet this need through (a) an increase in the enrollment of medical schools sufficient to provide opportunities for a greater number of qualified students, with special reference to those from areas and population groups of particular need; (b) an increase in scholarships, loans, and other methods of tuition financing be made available to our medical schools; (c) expanded and well-funded residency programs for the training of primary care physicians; (d) adequate funding of medical schools to permit them to maintain quality teaching of larger numbers of students as well as to continue their needed research and service functions.

Recognizing that increased numbers of physicians alone will not solve the problem of supplying comprehensive health care to all children, **WE RECOMMEND THAT**

14. Incentives be made available to stimulate the better distribution of health professionals to areas of greatest need so as to provide medical care of high quality to the entire spectrum of the population. These should include (a) professional stature incentives such as membership on university faculties and special opportunities for continuing education; (b) financial incentives such as are provided by industry and government for those with special assignments, or

through programs of loan forgiveness; (c) social incentives such as increasing the personal satisfaction of those delivering care in areas of need by wider recognition of their contributions by society as a whole, as well as by the people they serve.

WE FURTHER RECOMMEND

15. The creation of a voluntary multidisciplinary National Health Service Corps.

B. The *Report* has repeatedly indicated that where properly trained physician support personnel is available, both the quantity and the effectiveness of the care provided is greatly improved. Therefore, **WE RECOMMEND THAT**

16. There be instituted throughout the country training programs for pediatric nurse associates, pediatric office assistants, and pediatric aides which are (a) adequately and continuously funded; (b) relevant to the needs of providing health care; (c) suitably structured to allow upward and lateral movement of such workers in the health care system, and (d) suitably certified to provide for high educational standards and professional recognition.

To aid in accomplishing these goals, **WE FURTHER RECOMMEND THAT**

17. There be educational programs instituted throughout the country directed to the health professions, the general public, and to the potential manpower pool to stimulate recruitment programs and the promotion of public and professional acceptance of such workers.

C. **Methods of Financing the Delivery of Health Care to Children:** Lack of an equitable method of payment is a great

barrier to the delivery of health care to many children. Child health care is far too expensive for millions of families. Voluntary health insurance is beyond the financial capabilities of many families. With few exceptions, prepaid health insurance policies give very inadequate coverage of child health care services. A number of national health insurance programs are presently under consideration by Congress. A special committee of the Academy is carefully reviewing these and will develop further specific recommendations designed to ensure that the health needs of all children are met. Therefore, **WE RECOMMEND THAT**

18. A national health insurance program be developed that will ensure comprehensive coverage for all children. Any program for the general population should give priority to children, should encourage individual responsibility, and continuance of the personal physician/patient relationship.

VI. Special Considerations

Throughout the study, we have encountered increasing evidence of the changing role of the consumer in the delivery of health care. Until recently, consumers have had very little to do with decisions regarding the methods of delivery of such care. The *Report* has also indicated that we have little information regarding the needs and expectations as seen by the consumers. Therefore, **WE RECOMMEND THAT**

19. Ongoing surveys of health needs, as seen by families, be undertaken as an essential step in planning the restructuring of health care systems. **WE FURTHER RECOMMEND THAT**

20. All plans for community health programs in child

health care include community involvement from the beginning in all areas except those that involve strictly technical medical decisions.

Conclusion

It is the purpose of this Report to identify the inadequacies of the American system for providing child health care and to make recommendations concerning their correction. To many, this may cause the Report to seem unduly critical and pessimistic about the American health care system.

In fact, it must be remembered that this system has many strengths, and that it provides the best of medical care services for many American children. It is upon these strengths, and those of our society that the future must be built. No country has spent more of its resources in the solution of the age-old problem of poverty. Both government and public are now conscious of and are work-

ing to correct the problems of environmental pollution.

Major scientific advances of the past quarter century have not only permitted the prevention and cure of many diseases, but have brought about alleviation of others which cannot as yet be cured. One of the greatest advances is the recognition that loving care and proper environmental stimulation in early childhood may often prevent emotional illness and mental retardation. This is making a profound difference in the approach to disadvantaged children.

Youth

In particular, the youth of our nation are aroused by our social, economic and educational inequalities, as well as by the deterioration of our environment. This augers well for the eventual lessening of our health care needs through the elimination of a number of the factors presently contributing to them.

The inclusion of consumers in health planning and the avidity with

which new approaches to care are being introduced and evaluated are further evidence of the open-minded and yet critical approach which has characterized the scientific advances of this country.

Another hopeful sign is that there is an increasing commitment in the country, as a whole, to the introduction of a program for payment that will make comprehensive health care available to all children.

Furthermore, the indicated willingness of universities, medical organizations, consumer groups, school districts, social organizations, labor groups, industry and levels of government to form new partnerships for the delivery of child health care is especially important and highly encouraging.

With these strengths on which to build, and the needs of children ever more clearly defined, there is good reason to believe that the years ahead will bring an even closer approach of our goal of optimal health for all American children.

Original Study Committee

- Carl C. Fischer, M.D.
Director of Study
 Raymond A. Christy, M.D.
 John P. Connelly, M.D.
 Edward Davens, M.D.
 Robert M. Heavenrich, M.D.
 James G. Hughes, M.D.
 John C. MacQueen, M.D.
 George R. Russell, M.D.
 Donald C. Strith, M.D.
 Hugh C. Thompson, M.D.
 Russell W. Mapes, M.D.
 R. James McKay, Jr., M.D.
 Robert G. Frazier, M.D.
 Stanley L. Harrison, M.D.
 William F. Irwin
Administrative Assistant

Contributors

- Raymond A. Christy, M.D.
 Carl C. Fischer, M.D.
 Andrew C. Twaddle, Ph.D.
 Paul F. Wehrle, M.D.
 James G. Hughes, M.D.
 Edward Davens, M.D.
 Robert B. Kugel, M.D.
 Herbert H. Work, M.D.
 Albroeder, M.D.

- Donald C. Smith, M.D.
 Joel J. Alpert, M.D.
 Naham Cons, D.D.S.
 Harris D. Riley, M.D.
 Leo S. Bell, M.D.
 Donald L. Fink, M.D.
 William B. Forsyth, M.D.
 Faustina Solis
 M. Harry Jennison, M.D.
 Robert I. Jaslow, M.D.
 John P. Connelly, M.D.
 George R. Russell, M.D.

Council on Pediatric Practice

- Glenn Austin, M.D. 1967-70
 Stanton J. Barron, Jr., M.D. 1969-70
 Leo S. Bell, M.D. 1969-70
 Raymond A. Christy, M.D. 1966-70
 Thomas C. Cock, M.D. 1966-70
 John P. Connelly, M.D. 1966-70
 William G. Crook, M.D. 1964-70
 Charles H. Cutler, M.D. 1964-66
 Edward Davens, M.D. 1967-70
 Frank H. Douglass, M.D. 1964-65
 Timothy J. Driscoll, M.D. 1967-68
 Edward C. Dyer, M.D. 1964-67
 Bruce W. Everist, M.D. 1969-70
 Carl C. Fischer, M.D. 1964-70
 Donald J. Frank, M.D. 1969-70
 David McL. Greeley, M.D. 1967-70

- Frederick C. Green, M.D. 1969-70
 Robert M. Heavenrich, M.D. 1967-70
 A. Charles Hoffman, M.D. 1966-68
 James G. Hughes, M.D. 1967-70
 Norman Kendall, M.D. 1969-70
 Joseph A. Little, M.D. 1964-67
 John C. MacQueen, M.D. 1967-70
 Andrew M. Margileth, M.D. 1969-70
 Halcuit Moore, M.D. 1964-67
 Capt. Melvin Museles, MC USN 1969-70
 Lawrence E. Reck, M.D. 1965-68
 Daniel R. Reclanus, M.D. 1969-70
 Cordon L. Richardson, M.D. 1966-67
 Sidney Rosin, M.D. 1968-70
 George R. Russell, M.D. 1964-70
 Arthur J. Salisbury, M.D. 1969-70
 Samuel O. Sapin, M.D. 1968-70
 Alfred L. Skinner, M.D. 1969-70
 Donald C. Smith, M.D. 1965-70
 George W. Starbuck, M.D. 1964-70
 H. Luten Teate, Jr., M.D. 1968-70
 Hugh C. Thompson, M.D. 1964-70
 Edward A. Townsend, Jr., M.D. 1964-65
 Howard S. Traisman, M.D. 1964-65
 Stewart C. Wagoner, M.D. 1968-69
 Seymour E. Wheelock, M.D. 1968-70
 Samuel M. Wishik, M.D. 1967-68

HOW TO ORDER ERIC DOCUMENT REPRODUCTIONS

Title	Cost of hard copy per page	Number in Document Microfiche Collections	Cost of Collections
Reports in Research in Education for 1967	.05	2,349	\$ 480
Reports in Research in Education for 1968	.05	7,458	1,470
Reports in Research in Education for 1969	.05	13,873	1,746
Total for all reports			\$3,696
Office of Education Research Reports, 1956-65	.05	1,214	495
ERIC Catalog of Selected Documents on the Disadvantaged	.05	1,746	410
Pacesetters in Innovation, Fiscal Year 1966	.05	1,075	180
Pacesetters in Innovation, Fiscal Year 1967	.05	907	215
Pacesetters in Innovation, Fiscal Year 1968	.05	572	140
Selected Documents in Higher Education	.05	845	190
Manpower Research, Inventory for Fiscal Years 1966 and 1967	.05	392	100
Manpower Research, Inventory for Fiscal Year 1968			
Group I*	.05	81	35
Group II**	.05	202	55
Total for all ERIC special collections			\$1,820
Grand total			\$5,516

All individual microfiche continue to be 25 cents each.

Note: A standing order for all microfiche of reports cited in monthly issues of *Research in Education* is currently about \$150.

When ordering from the ERIC Document Reproduction Service, the following information should be furnished:

The ED numbers of the desired documents (titles need not be given).

The type of reproduction desired—hard copy or microfiche. The number of copies being ordered.

Purchase from: ERIC Document Reproduction Service
National Cash Register Company
4936 Fairmont Avenue
Bethesda, Maryland 20814

"HC" stands for hard copy—reproduction on paper in easy-to-read form. "MF" stands for microfiche—reproduction on a 4x6 inch sheet of film with up to 70 images, each representing an 8x11½ inch sheet of paper. Microfiche readers, available from many manufacturers, are required to enlarge the images for reading purposes.

To order hard copy reproductions from issues of *Research in Education* prior to March 1969, increase the price shown in the document résumé entry by 25 percent.

Special note: The full texts of items cited in the Project Section of *Research in Education* are not available for purchase from the ERIC Document Reproduction Service.

Payment must accompany orders totaling less than \$5. Add a handling charge of 50 cents to all orders except full document collections. The ERIC Document Reproduction Service is registered to collect sales taxes. Orders from states which have sales tax laws should include payment of the appropriate tax or tax exemption certificate.

Foreign orders: A 15-percent service charge, calculated to the nearest cent, must accompany orders from outside the United States, its territories, and possessions except Mexico and Canada. Export charges are eliminated completely on individual orders under \$50.00 from Canada and Mexico; the 15% service charge applies however, on all orders over \$50.00. These service charges are applicable to orders for both microfiche (MF) and hard copy (HC).

* This group includes documents already in the ERIC system which are available to recipients of standing orders.

** This group represents documents new to the ERIC system.

ERIC PUBLICATIONS

	GPO Order Number and Price	Yearly Subscription
Research in Education		
Monthly Abstract Journal. Please send subscription orders separately from orders for other publications listed below.	Domestic	\$21.00
	Foreign	\$26.25
	Single Issues	\$ 1.75
Research in Education, 1967 Annual Index Reports		
(Order by title)		\$ 3.25
Research in Education, 1967 Annual Index Projects		
(Order by title)		\$ 1.50
Cumulative Indexes of first 14 issues of RIE November 1966-December 1967, 2,349 titles		
Research in Education, Annual Index Reports		
January-December 1968, 8,803 titles	(Order by title)	\$ 8.25
Research in Education, Annual Index Reports		
January-December 1969, 10,453 titles	(Order by title)	\$ 6.25
Thesaurus of ERIC Descriptors, Second Edition		
To be used in searching the subject indexes of RIE and other ERIC publications.	OE-12031-69	\$ 3.25
Rules for Thesaurus Preparation, Sept. 1969	OE-1204	\$ 0.20
Office of Education Research Reports, 1956-65, Resumes		
Abstracts of 1,214 research reports received by the Bureau of Research before the start of publication of RIE.	OE-12029	\$ 1.75
Office of Education Research Reports, 1956-65, Indexes		
Indexes, reports by author, institution subject, and report numbers.	OE-12028	\$ 2.00
ERIC Catalog of Selected Documents on the Disadvantaged. Number and Author Index	OE-37001	\$ 0.65
1,746 documents dealing with the special educational needs of disadvantaged, to 1966.		
ERIC Catalog of Selected Documents, Subject Index, to 1966.	OE-37002	\$ 3.00
Pacesetters in Innovation, Fiscal Year 1967	OE-20103-67	\$ 2.50
Résumés of projects to advance creativity in education approved during fiscal year 1967 indexed by subject, local education agency, and project number. 907 documents covered.		
Pacesetters in Innovation, Fiscal Year 1968	OE-20103-68	\$ 2.50
Pacesetters in Innovation, Fiscal Year 1969	OE-20103-69	\$ 5.00
Manpower Research: Inventory for Fiscal Years 1966 and 1967	OE-12036	\$ 2.75
Collection by Intragency Committee on Manpower Research covering 392 documents.		
Manpower Research: Inventory, for Fiscal Year 1968	OE-12036-68	\$ 1.75
Manpower Research: Inventory for Fiscal Year 1969	OE-12036-69	\$ 1.75
Selected Documents in Higher Education, Number and Subject Index		
Covers 845 documents.	Not available from GPO	
	Order from EDRS/NCR	
	ED-012 110	
	\$4.05 (HC) \$ 0.50 (MF)	
How To Use ERIC	OE 12037-B-	\$ 0.25
A graphic aid to the use of ERIC system.		
Purchase from: Superintendent of Documents U. S. Government Printing Office Washington, D. C. 20402		

(Continued from page 13)

- Landers, Rosalind. **Public Education in New York City**, New York: First National City Bank, November, 1969.
- Lennard, Rodney E. "Why Child Nutrition Programs Fail," Washington, D. C.: The Children's Foundation, 1969. ED 028 459 (MF-\$0.50; HC-\$3.00)
- Mayer, Jean. "The Nutritional Status of American Negroes," *Nutrition Reviews*, 23, June, 1965, pp. 161-164.
- Munro, Nancy. **A Study of Food and Poverty Among 113 Head Start Children in Missoula, Montana**. Missoula, Montana: University of Montana Foundation, 1968. ED 028 829 (MF-\$0.50; HC-\$5.75)
- Myers, Madge L.; O'Brien, Sheila C.; Mabel, Judith A.; Stare, F. J. "A Nutrition Study of School Children in a Depressed Urban District. 1. Dietary Findings," *Journal of American Dietetic Association*, 53, September, 1968, pp. 226-233.
- National Center for Health Statistics: **Infant and Perinatal Mortality in the United States**. Vital and Health Statistics PHS Pub. No. 1000—Series 3—No. 4. Public Health Service, Washington, D. C., U. S. Government Printing Office, October, 1965 (Authors: Shapiro, S.; Schlesinger, E. R.; Nesbit, R. E. L., Jr.).
- North, F. A. "Research Issues in Child Health I: An Overview," *Pediatrics*, 45, April, 1970.
- North, F. A. "Project Head Start: Its implications for School Health," *American Journal of Public Health*, 60, April, 1970, pp. 698-703.
- Nutrition and Intellectual Growth in Children**. Bulletin 25-A, Washington, D. C.: Association for Childhood Education International, 1969.
- Nutrition and Human Needs**. Hearings before the Select Committee on Nutrition and Human Needs of the United States Senate. Parts 1, 2, 3 and 15, 1968-1969. Parts 1 and 2, 1970. Washington, D. C., U. S. Government Printing Office.
- Owen, G. M.; Kram, K. M. "Nutritional Status of Preschool Children in Mississippi," *Journal of American Dietetic Association*, 54, June, 1969, pp. 490-494.
- Paige, J. C. "Health Programs for the Disadvantaged: Implications for School Health," *Journal of School Health*, 40, March, 1970, pp. 123-126.
- Pollack, H. "Hunger USA, 1968: A Critical Review," *American Journal of Clinical Nutrition*, 22, April, 1969, pp. 480-489.
- Pasamanick, B.; Knobloch, H. "Brain Damage and Reproductive Casualty," *American Journal of Orthopsychiatry*, 30, April, 1960, pp. 298-305.
- Ricciuti, H. "Malnutrition, Learning and Intellectual Development: Research and Remediation," *Psychology and Problems of Society*, Washington, D. C.: American Psychological Association, 1970.
- Scrimshaw, N. S.; Gordon, E. Eds. **Malnutrition, Learning and Behavior**, Cambridge, Massachusetts: MIT Press, 1968.
- Stewart, W. H. "The Unmet Needs of Children," *Pediatrics*, 39, February, 1967, pp. 157-160.
- Their Daily Bread: A Study of the National School Lunch Program**, New York: Committee on School Lunch Participation, 1968.
- Wagner, M. G. "Research Issues in Child Health III: Some Socio-anthropologic and Organizational Issues," *Pediatrics*, 45, May, 1970.
- Wiener, G.; Rider, R. V.; Oppel, W. C.; Harper, P. A. "Correlates of Low Birthweight. Psychological Status at Eight to Ten Years of Age," *Pediatrics*, 2, March, 1968, pp. 110-118.
- Werner, Emmy. "Cumulative Effect of Perinatal Complications and Deprived Environment on Physical, Intellectual and Social Development of Preschool Children," *Pediatrics*, 39, April, 1967, pp. 490-505.
- Wortis, H.; Heimer, C. B.; Braine, M.; Redlo, M.; Rue, R. "Growing Up in Brooklyn: The Early History of the Premature Child," *American Journal of Orthopsychiatry*, 33, 1963, pp. 535-539.

This Bulletin was prepared pursuant to a contract with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official Office of Education position or policy.

ERIC-IRCD BULLETIN

Edmund W. Gordon — Editor

Teachers College
Columbia University
525 West 120th Street
New York, New York 10027

Volume VI, No. 3

ADDRESS CORRECTION REQUESTED

Non-Profit Org.
U. S. Postage
PAID
New York, N. Y.
Permit No. 5578