

Survey of Unmet Medical Needs of Children in Six Counties in Florida

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A SURVEY of unmet medical needs of children under 16 years old in six counties of Florida—Leon, Gadsden, Jefferson, Franklin, Wakulla, and Liberty—was undertaken in 1967. The study was aimed primarily at uncovering prevalent diseases and other health conditions and determining whether the affected children were receiving adequate treatment. A secondary purpose was to obtain a general description of community medical services and to appraise their adequacy.

As a basis for comparison, general demographic data were collected from the 1960 U.S. census, official reports of the State, county health departments, public schools, and public welfare agencies. Special attention was given to medical records of Head Start children in three counties participating in the Head Start program in 1966. Interviews were planned for a sample apportioned according to the child population reported for each of the six counties in the 1960 census. On this basis, the samples from each county were 50 percent in Leon, 31 percent in Gadsden, 8 percent in Jefferson, 4.3 percent in Franklin, 4 percent in Wakulla, and 2.4 percent in Liberty.

Adequacy of medical care was evaluated in

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terms of money being spent by various public agencies for service to the families who could not purchase medical care. Annual income data were obtained so that correlations could be made with health problems and income levels and samples could be evaluated according to the 1960 census income distribution in the six counties.

General Demographic Data

In 1960 the nonwhite population was approximately 60 percent in Gadsden County, 60 percent in Jefferson County, 33 percent in Leon County, 28 percent in Wakulla County, 21 percent in Franklin County, and 15 percent in Liberty County. In the entire State of Florida, 18 percent of the population was nonwhite.

Of the six counties, all but Leon had a larger number of children than the State's average. Also, a comparatively heavy concentration of aged persons in Franklin and Jefferson Counties resulted in a greater dependency rate. In 1960 Florida contained a higher percentage of persons over age 65 compared to the United States as a whole, and Franklin County exceeded the State rate.

All but Leon County had a median income below the State average. The 1960 census indicated that more than half of the families had incomes less than \$3,000 per year in Franklin,

Gadsden, Jefferson, and Wakulla Counties. Baseline income data are shown in table 1.

Dire poverty was evident in all but Leon County in 1960. The percentages of families with less than \$1,000 income were 15.5 in Wakulla, 12.9 in Jefferson, 12.1 in Franklin, 10.4 in Liberty, 10.3 in Gadsden, and 6.5 in Leon.

In 1967 infant death rates exceeded the State average only in Gadsden County and the national average (22.1) only in Franklin and Gadsden Counties as compared to 1964 when Franklin, Gadsden, Jefferson, and Leon Counties exceeded State and national averages. Marked declines occurred in Gadsden, Jefferson, and Leon Counties between 1961 and 1967 (table 2).

The following total death rates were recorded for persons under age 20 in 1967 (1): Franklin 3, Gadsden 38, Jefferson 11, Leon 67, Liberty 2, and Wakulla 5. The infant deaths equaled childhood and youth deaths, ages 1 to 20. Apparently existent health problems did not lead to a large number of deaths during childhood. Thus, we examined Head Start medical records and survey findings with a view to conditions which limit child development and mental and physical effectiveness in adulthood.

Methodology

Two approaches were used in the study. The first was a review of the medical examination records of the Head Start children who were enrolled in summer 1966. We reviewed all available records for these children in Franklin

Table 1. Median and high-low income distributions, 1960 census

Location	Median income	Percent families with incomes of—	
		\$3,000 or less	\$10,000 or more
United States.....	\$5, 560	21. 4	15. 1
State of Florida.....	4, 722	28. 4	11. 1
Counties of Florida:			
Franklin.....	2, 699	56. 7	1. 5
Gadsden.....	2, 866	52. 5	6. 0
Jefferson.....	2, 741	54. 4	4. 9
Liberty.....	3, 277	46. 2	. 5
Leon.....	5, 173	27. 3	13. 6
Wakulla.....	2, 783	54. 3	3. 3

County, every fifth record in several schools in Leon County, and every fourth record in Jefferson County. This sample was somewhat biased because the Head Start children's families had to have an income of less than \$3,000 per year. A further limitation was that physical examination records for most of the Head Start children were incomplete. The physicians left many items blank on the forms, and it was difficult to know how to interpret these blanks.

The second approach was to interview families in the six counties concerning immunizations and health problems of children under age 16. The questionnaire included family income, race, vaccinations for smallpox and poliomyelitis, and DTP immunization. Also included were questions concerning whether during the past year the child had seen a physician or dentist, or both, and whether he had:

Table 2. Infant death rates per 1,000 live births, by race and by county of residence in 1961 and 1967, Florida

County	Infant deaths, 1961			Infant deaths, 1967		
	Total	White	Nonwhite	Total	White	Nonwhite
State totals.....	29. 1	23. 2	45. 8	23. 8	18. 8	37. 1
Franklin.....	23. 5	23. 6	23. 3	23. 6	¹ 22. 0	¹ 27. 8
Gadsden.....	60. 9	33. 6	69. 2	30. 3	¹ 9. 8	¹ 36. 8
Jefferson.....	39. 2	15. 4	47. 4	21. 2	¹ 18. 9	22. 1
Leon.....	32. 2	20. 2	53. 6	16. 6	12. 4	25. 3
Liberty.....	23. 3	29. 4	¹ . 0	¹ 18. 9	¹ 20. 8	¹ . 0
Wakulla.....	17. 7	13. 3	26. 3	19. 0	¹ 14. 4	¹ 26. 3

¹ Based on less than 100 live births.

Sources: Florida State Board of Health, annual reports, Jacksonville, 1962, p. 76; 1968, p. 327.

Unexplained loss of weight.
 Eating problems.
 Unexplained tiredness, regularly.
 Running ear—watery, bloody, pus.
 Poor vision—either for distance or for close work such as reading.
 Persistent headaches.
 Toothache or unable to chew food.
 Persistent skin rashes or itching of skin—"breaking out."
 Persistent pains in chest.
 Persistent cough (except chest colds).
 Severe shortness of breath after doing light work.
 Coughing up or spitting blood.
 Repeated or persistent backache.
 Persistent pains in joints.
 Open or running sores or boils that do not heal anywhere on the body.
 Repeated vomiting, several days or more.
 Repeated or prolonged pains in stomach or anywhere in abdomen.
 "Rupture"—hernia or wearing of truss.
 Fainting spells, stuttering, stammering, nervous breakdown, "fits" or convulsions.
 Accidental injuries—broken bones, head injuries, accidental poisoning, snake bites, or other types of injury.

Four students who were majoring in social welfare were selected to do the interviewing. They were oriented as to the purpose of the study and interview procedure which included exploration of the respondent's understanding of the questions. The interview schedule was adapted from an approach devised by Hoffer and associates of Michigan State College (2, 3). Several changes were made to tailor the schedule to children. When the medical needs schedule was used in Michigan, the effectiveness of the interview approach was evaluated by examination of a sample of the interviewees by personnel of the University of Michigan School of Medicine.

The Michigan interview approach was determined to be 80 percent effective; 10 percent of its failure resulted from missing significant symptoms and 10 percent from over-reading of symptoms. Because no similar medical examination arrangement was possible in our study, we could not expect the high percentage of effectiveness attained in Michigan.

I believe that medical needs may have been understated in our study because of the more limited education of our interviewees, compared to those in Michigan, and because of communi-

cation problems between interviewers and interviewees. For our study, health conditions were analyzed according to age, race, and income at the Florida State University Computer Center.

Results

Head Start medical records. The Head Start children's medical records in the three participating counties, except for those in Jefferson and the village of Carrabelle in Franklin County, generally were incomplete and ambiguous as to whether a health problem did not exist or was ignored. Some inconsistencies were also seen in the medical report forms used. Because of the differences in the forms, only tooth decay and immunizations could be reported generally.

Of the Head Start children for whom dental examinations were recorded, 87 percent in Franklin, 97 percent in Jefferson, 39 percent in Leon, and 70 percent of the total number examined needed dental care. This need may have been understated because the records in Leon County were less complete than in the other two counties.

The immunization records indicated that 33 percent of the Head Start children had not been vaccinated against smallpox. In Leon County only 45 percent were reported to have had DTP and only 40 percent had received polio vaccine.

A high incidence of hypochromic anemia was seen in two counties—10 of 27 children in Carrabelle and 10 of 31 children in Jefferson County were reported to have this condition.

Family interviews. Interviews were conducted with 389 families, having a total of 1,177 children, in the six counties. The sample was skewed toward the low-income group, because 43.3 percent of the children were in families having incomes of less than \$3,000 per year. Among the six counties, the percentages of families in this income group exceeded the percentages reported in the 1960 census in all but Franklin and Jefferson Counties.

All health conditions listed in the questionnaire drew some response. The lowest count was 12 each for backache and hernia. Complaints reported by more than 4 percent of the total were eating problems, 24 percent; cavities, 21 percent; skin rash, 12 percent; injuries or poisoning, 11 percent; vision difficulties, 10 per-

cent; headache, 8 percent; ear trouble, 6.3 percent; repeatedly occurring stomach pains, 6 percent; running sores and boils, 5 percent; fainting spells and speech problems, 5 percent; and unexplained tiredness, 4 percent. Untreated conditions, including the eating problem, were reported for 34 percent of the children. Excluding the eating problem, 26 percent of the children had untreated conditions.

Of the children with untreated health conditions, 57.5 percent were in families with incomes less than \$3,000 per year (43.3 percent of all the children were in this income group). Untreated conditions were reported for 33 percent of the children in families with less than \$1,000 income, 40 percent in the \$1,000-\$2,000 bracket, and 32 percent in the \$2,000-\$3,000 bracket.

A significant difference in chances of treatment according to race was indicated (table 3). The percentage calculations were based on the

total number of children included in the interviews in the six counties and the total numbers of white and nonwhite children in each county. For example, the basis for comparison for all six counties in table 3 was 1,177 children, 524 white and 653 nonwhite.

The questionnaire responses suggested that the nonwhite children had less chance of being immunized than the white children. The comparative percentages of nonimmunized children were as follows:

Disease	White	Nonwhite
Smallpox.....	27	35
Diphtheria, tetanus, and pertussis.....	17	33
Poliomyelitis.....	16	26

These percentages indicate that the immunization failure reported in the records of Head Start children for diphtheria, tetanus, and pertussis and poliomyelitis may be accurate because the majority of these children were from low-

Table 3. Percentages of children in families having less than \$3,000 annual income with untreated and treated health problems, by race, six counties in Florida, 1966

County	All children		Untreated		Treated ¹	
	Number	Percent below \$3,000	White	Nonwhite	White	Nonwhite
Franklin.....	61	42.6	47.0	55.5	23.5	22.2
Gadsden.....	372	55.6	14.0	36.5	71.0	25.5
Jefferson.....	102	52.0	(²)	31.0	(²)	42.2
Leon.....	561	30.0	18.2	31.3	45.5	35.3
Liberty.....	30	70.0	28.6	25.0	14.3	(²)
Wakulla.....	51	63.0	(²)	51.6	100.0	3.0
Total.....	1,177	43.3	30.0	35.4	31.6	30.0

¹ At least 1 health condition treated.

² No health problems reported.

Table 4. Percentages of 18-month-old children immunized against selected diseases, 1968

County ¹	All ²	Smallpox (1 dose)	Poliomyelitis		DTP		None
			(2 or more doses)	(1 or more doses)	(3 or more doses)	(1 or more doses)	
State.....	25.4	34.7	69.8	80.6	69.7	82.4	15.4
Franklin.....	3.8	9.5	45.7	65.1	42.9	67.6	22.7
Gadsden.....	42.4	46.1	64.5	76.4	63.2	76.0	34.2
Leon.....	12.3	24.5	56.0	73.8	56.4	74.5	24.5
Liberty.....	43.5	32.2	95.7	97.8	95.7	97.8	2.2
Wakulla.....	4.3	6.5	32.6	44.6	32.6	48.9	46.7

¹ Jefferson County did not report for 1968.

² Measles vaccination included as well as smallpox, poliomyelitis, and DTP.

SOURCE: Florida State Board of Health, annual report, Jacksonville, 1968, derived from table 29, p. 235.



income nonwhite families. Of the total numbers of white and nonwhite children, 32 percent had not been vaccinated against smallpox, 25 percent had not received DTP, and 22 percent had not received poliomyelitis vaccine. As to age division, 20 percent of those under age 7 and 11 percent of those aged 7 and above were not protected against smallpox, 16 percent of those under age 7 and 9 percent of those aged 7 and above had not received DTP, and 15 percent under age 7 and 7 percent aged 7 and above were not protected against poliomyelitis.

An immunization program, partially supported by a grant from the Public Health Service, functioned between 1963 and 1968. Results have not been very encouraging (table 4).

Public Medical Expenditures

The Florida State Department of Public Welfare began to pay for prescribed medicines in April 1966. All counties in the State were making some use of this Federal-State option. In the six counties studied, assistance was being given to a monthly average of 25 families at an average cost of \$8.36.

The State made limited use of the vendor payment program. In fall 1965 the average vendor payment per child under Aid to Families with Dependent Children (AFDC) was \$3.15 for the nation and 45 cents for Florida. The average annual hospital payment for AFDC children in Florida was \$8.50; in the six

counties it was \$4.43 per child. None of these payments were made in Wakulla County. Participation in the prescribed medicine part of the Federal-State vendor program was about the same for the six counties as for the State. The average monthly payment per AFDC child was 26 cents in these counties and 25 cents in the State.

County health department expenditures were largely directed toward immunizations. Limited expenditures were made for direct treatment of sores, hookworm, pediculosis, tuberculosis, and venereal disease. For other conditions, referral was made to private physicians. County health units were spending about \$10.60 per capita. Only Leon County had a Federal grant, in the amount of \$12,873, during fiscal year 1964. Recent reports of the Florida State Board of Health reflect inadequate functioning of county health departments in terms of the number of indigent children receiving medical service as compared to an estimate of the number needing service. (4a).

The ratio of need to intake for county health department medical services was stated as follows:

County	Intake	Ratio
State total.....	15, 473	48. 1
Franklin.....	5	5. 8
Gadsden.....	308	62. 7
Jefferson.....	8	6. 6
Leon.....	69	13. 6
Liberty.....	3	11. 1
Wakulla.....	11	18. 0

County welfare was a limited medical care resource in 1966. Welfare expenditures were approximately \$46,340,000, 30 percent of the total State welfare expenditures. Of this amount, \$38,476,000 was for medical expenditures. County expenditures were even more limited in the six counties. For example, an annual report of the Associated Charities of Leon County, financed by city and county funds and by private donation, reported a total annual budget of \$43,393.80; an administrative cost of \$28,240.40 left only \$15,103.40 for services for a population of about 100,000.

A total of 783 families were receiving direct welfare in Leon County in 1966—assistance for food, medicine, physicians' fees, fuel, transportation, rent, utilities, and nursing home care. Among the 783 families were 36 white and 77 nonwhite families whose applications for welfare were rejected. Assistance was given to 74 white and 70 nonwhite families in purchasing medicines. Additional medical aid was given to 24 white and 31 nonwhite families.

The Florida Crippled Children's Commission provided services for 649 eligible children in the six counties during the fiscal year ending 1966.

The records of county health departments revealed some common health problems in children as well as preventive activities. The incidence of intestinal parasites was particularly high in Gadsden County—5,294 of 39,424 persons with intestinal parasites treated in the State were treated in this county in 1966 (5). Gadsden County was more active than Leon County in providing immunization and vaccination for diphtheria, whooping cough, tetanus, and smallpox in relation to the total population.

All six counties had physical examination programs for 1,458 school children in 1967, but the low rate of referrals completed (5 percent) suggested a lack of facilities or effort. This impression was supported by the fact that 50 percent of the referrals were completed for the entire State (4b).

School children, aged 5–17 years, in Liberty and Wakulla Counties received dental examinations in 1965. In Liberty County, 227 of 319 children examined needed dental care and in Wakulla County 53 of 55 examined needed such care.

In Liberty County the 227 children needing

dental care constituted 27 percent of the total children aged 5–17 years enrolled in school in 1965. The 53 children in Wakulla County represented 4 percent of the 5–17 age group enrolled in school. Of course, it cannot be assumed that all children not examined in these counties had good teeth, but for the 27 percent in Liberty County who needed dental care there were no reports of referrals.

A 32 percent successful referral rate for children with hearing problems and a 48 percent successful referral rate for children with vision difficulties suggested a lack of resources or a failure in referral efforts for the six counties in 1967 (4b).

Health Programs and Agencies

The study revealed a number of gaps in the public effort to provide the health services needed by the children in low-income families in 1966. The following is a partial list.

1. Public assistance grants were far too low to permit adequate food, shelter, and clothing. The average AFDC payment per recipient for these purposes was \$15.38 in Florida in September 1966 and \$20.55 in May 1969.

2. The State of Florida had only limited participation in the Federal-State grants-in-aid medical services program, and the Medicaid program had not yet been started. (The Medicaid program, which was activated January 1, 1970, provides little improvement. Coverage is limited to requirements under title XIX and so the medically indigent, nonwelfare recipient category is excluded. Physician services up to 12 visits a year were authorized, but it is anticipated that funds appropriated will not last until July 1, 1970. Also included were per-year authorization of inpatient hospital services up to 45 days, outpatient services up to \$100, and laboratory and X-ray services up to \$50. Maximums for skilled nursing homes and prescribed drugs were set at \$300 and \$20 per month respectively. The State will not spend appreciably more, the counties will spend less, and the additional Federal funds are not sufficient to greatly improve medical and hospital services.)

3. Although county health departments scored some important gains over the past decade, some limitations were apparent. For example, in Leon County a well-staffed health



department indicated that it could provide only limited medical treatment, such as for intestinal parasites and venereal disease, and suggested that low-income persons see private physicians for other health problems. Immunizations could be obtained only on certain days, and there was only a moderate immunization program through the schools or through home visits by nurses. Immunizations appeared to be more thorough in Liberty and Gadsden Counties where there were some reports of exception to a basic poor law attitude in reaching out to provide preventive medical services.

4. Direct welfare provided limited funds for medical care, as in the example cited earlier regarding the Leon County Associated Charities.

5. School health records generally showed inadequate medical service and poor recordkeeping when physicians did give examinations.

6. The medical-social work function of helping people, which makes constructive use of the limited medical services available, was lacking.

7. Citizens in general had limited faith in the growing concept of the value of the larger investment in human resources through health and educational programs by the community, State, and nation.

8. The humane interest in providing for those needing help did not adequately substitute for lag in the more selfish community tax cost versus service gain justification.

Summary

A study undertaken in 1967 to ascertain the amount of unmet medical needs of children under age 16 in six counties of Florida—Leon, Franklin, Gadsden, Jefferson, Liberty, and Wakulla—revealed that low family incomes, compared to averages in the State and the nation, and relatively high dependency ratios severely limited family capacity to purchase medical services.

Two avenues of investigation were used. Head Start medical records were reviewed in the three counties sponsoring Head Start programs, and 389 families in the six counties, having a total of 1,177 children, were interviewed regarding immunizations and health conditions of the children. Additional information was obtained from reports of the Florida State Board of Health and other public agencies.

Although infant mortality rates had declined from 1960 to 1967, many serious gaps in child health care were apparent: (a) 70 percent of the Head Start children were in need of dental care, (b) hypochromic anemia was common, (c) more than half of the Head Start children were not immunized against smallpox, diphtheria, tetanus, pertussis, and poliomyelitis, (d) a third of the children in the interview survey had health conditions which indicated need for examination by a physician or dentist, (e) a third of the interview children had not been vaccinated against smallpox and a fourth were not protected against diphtheria, tetanus, pertussis, or poliomyelitis, (f) nonwhite children had appreciably less medical care than white children, and (g) public medical services were more limited than State or national averages in terms of services available and per patient expenditures. Subsequent reports by the State board of health supported findings of inadequate medical care in the area studied.

REFERENCES

- (1) Florida State Board of Health: Florida vital statistics. Bureau of Vital Statistics, Jacksonville, 1967, p. 34.
- (2) Hoffer, C. R., et al.: Health needs and health care in Michigan. Michigan State College Special Bulletin 365, East Lansing, c. 1949 (data presented for 1948).
- (3) Hoffer, C. R., and Jane, C.: Health needs and

health care in two selected Michigan communities. Pamphlet. Michigan State College Agricultural Experiment Station, East Lansing, 1952.

- (4) Florida State Board of Health: Annual report. Jacksonville, 1968, (a) p. 222; (b) appendix table 26.

- (5) Florida State Board of Health: Annual report. Jacksonville, 1966, p. 146.

Tearsheet Requests

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New Grants for Comprehensive Health Planning

Seventeen planning bodies in 14 States have been awarded grants totaling \$1,289,862 by the Health Services and Mental Health Administration, Public Health Service, to organize and conduct comprehensive health planning on an areawide or community level.

The grants were made under the Partnership for Health Program which provides assistance to States and communities in establishing comprehensive health planning programs. Three grants were made to groups that have completed organizational activities and are expanding into full-scale planning operations, and 14 grants went to support the development of new areawide comprehensive health planning agencies.

Effective comprehensive health planning, areawide, will enable providers and consumers of health services to make a coordinated attack on health problems in their communities. As health priorities are established, health needs identified, and courses of action recommended, chances of an integrated system for delivering health services will increase and chances for the existing nonsystem to flourish will diminish.

With the new grants, a total of 106 comprehensive health planning agencies are being supported under the Partnership for Health Program. They will serve more than half the U.S. population.

Following are the projects and the amounts of the new grants for conducting planning activities:

Chicago, Ill.—\$290,321 to the Developmental Program for Comprehensive Health Planning, Inc.
Worcester, Mass.—\$61,620 to the Comprehensive Health Planning Council of Central Massachusetts, Inc.

Santa Fe, N. Mex.—\$48,782 to the North Central New Mexico Comprehensive Health Planning Council.

Projects funded to organize and develop planning agencies and the amounts of awards are the following:

Bakersfield, Calif.—\$71,182 to the Comprehensive Health Planning Association of Central California.

Sacramento, Calif.—\$38,868 to the Golden Empire Regional Comprehensive Health Council, Inc.

Wilmington, Del.—\$45,855 to the Health Planning Council, Inc.

Tampa, Fla.—\$62,525 to the Sun Coast Health Council, Inc.

Louisville, Ky.—\$49,997 to the Falls Region Health Council, Inc.

New Orleans, La.—\$57,082 to the New Orleans Area Health Planning Council.

Peabody, Mass.—\$38,380 to the North Shore Health Planning Council.

Kirkville, Mo.—\$13,500 to the Northeast Missouri Health and Welfare Council, Inc.

East Orange, N.J.—\$107,947 to the Hospital and Health Planning Council of Metropolitan New Jersey, Inc.

New York City—\$258,204 to the City of New York.

Utica, N.Y.—\$45,480 to the Mid-State Committee on Areawide Health Planning, Inc.

Columbia, S.C.—\$20,777 to the Central Midlands Regional Planning Council, Inc.

Newport, Vt.—\$17,370 to the Northeast Kingdom Mental Health Service, Inc.

Richmond, Va.—\$61,971 to the Capital Area Comprehensive Health Planning Council, Inc.