This paper describes a preschool health screening service in which nurses, contracted through the Visiting Nurse Association, are assigned to day care centers receiving Title XX funds. The program focuses on health, safety and nutrition education. Screening includes history and physical assessment, developmental assessment, assessment or updating of immunizations, vision and hearing screening, urinalysis, tuberculin skin test, screening for anemia and sickle cell trait or disease, and screening for lead poisoning. Changes in the program since its inception include screening all children whether or not they receive Medical Assistance and screening children with a parent present. Advantages of the program are discussed and results of two years' screening efforts are presented in tabular form. (SB)
Recognizing the importance of the early years in shaping a child's future, 4-C in cooperation with the Visiting Nurse Association, began a program of early identification of possible physical and developmental problems in the federally funded day care centers in the city of Louisville. There are now ten centers in the city receiving Title XX funds, which are channeled through 4-C. The centers are located in designated poverty areas and each is run autonomously with its own board and director. The eligibility requirements are the same for all the children and priority is given to low-income parents who are working, in school or in training programs. There are approximately 500 children ranging in age from six weeks to six years.

Through a special contract with the Visiting Nurse Association, a nurse is assigned full-time to the day care centers. In 1972, when the contract was first signed, it was envisioned that the nurse would be only a coordinator of health services and would utilize the existing agencies to provide services to the children. During the first two years the Society for the Prevention of Blindness provided vision screening and the Health Department provided hearing screening. The Health Department furnished the supplies for kidney screening and T. B. testing which the nurse herself performed at the centers. When the lead program was started in the city, supplies were furnished by the Health Department and the samples were drawn.
by the nurse at the center. A micro-hematocrit machine was donated to the Visiting Nurse Association and testing for anemia was begun. Each time testing was done it was necessary to obtain permission slips from the parents and the nurse had no direct contact with the parents and had to rely on the staff at the center to relay messages if the children needed further follow-up. This was very time-consuming and often there was a break-down in communication. It is obvious that we were gradually becoming service providers due to the inability of obtaining the services elsewhere. Many times we could often provide the service in less time than it took to arrange it from other sources.

A main focus of our program then and now is health, safety and nutrition education. As the teachers were trained in these areas, they were invaluable in their abilities to observe the children and detect problems that may have never been noticed. They were also educating the parents by pointing out to them their observations.

All these factors and many more gradually evolved into the program we have today. In the Spring of 1974, the State of Kentucky was seeking more vendors for the Kentucky Medical Assistance, Early Periodic Screening, Diagnosis and Treatment program. The program directors learned that a large amount of screening was being provided in the day care centers and asked the Visiting Nurse Association to become a vendor. Approximately 40% of the children enrolled were Medical Assistance recipients. Although we had tried to obtain this screening it was never
possible because of the working hours of the parents. A number of steps had to be worked out before the final contract was signed in August of 1974.

Many overall changes were then made in the program. The WHAS Crusade for Children (a local TV fund raising marathon that is held annually for handicapped children) provided me with a grant to attend Pediatric Nurse Associate training in Indianapolis, Indiana. When I returned in January of 1975 we began to screen the children completely once a year with a parent present. This service is provided for all children regardless of whether or not they receive Medical Assistance. Many times the children who were not Medical Assistance recipients had had less medical care than those who were.

The screening includes:

1) history and physical assessment
2) developmental assessment
3) dental assessment
4) assessing or updating immunizations
5) vision and hearing screening
6) urinalysis
7) tuberculin skin test
8) screening for anemia and sickle cell trait or disease
9) screening for lead poisoning

Children entering the center who had been screened elsewhere were asked to furnish a statement from the clinic or
physician who had provided the service. However, we would also interview the parent and obtain sufficient history to determine the needs of the child. A flier was prepared explaining the screening program, and was presented to each parent at the time of enrollment. The hours of screening were adjusted to make it possible for working mothers and mothers in job-training to be present. In addition to providing the screening services, I also serve as a consultant and trainer for the centers in the areas of health, safety and nutrition.

There were many reasons for making all these changes:

1) We have always strongly supported the idea that early years are the most important. Early identification leads to early treatment, thus, preventing many serious handicapping conditions later in life.

2) With the added reimbursement from Medical Assistance it was possible to purchase supplies to expand screening services.

3) Parent education has always been a significant part of our program. Contact with the parent provides us an excellent opportunity to promote health education.

4) The rate of follow-up on identified problems was very low. Many times it was
not a lack of concern but rather a lack of knowledge about the seriousness of the matter. Working parents are often quite busy or too tired to seek help for their children when they need it. When they were present and actually witnessed their child failing a specific task they were much more apt to follow-up.

5) By adjusting the hours of the screening, parents were able to attend without missing work or school. The screening hours are from twelve noon to six p.m. one day a month in each center.

6) One of the most noticeable deficiencies in health care among low-income families is the lack of continuity of care. They go from place to place and often are not given thorough care because of this. They utilize emergency rooms at night time and never see the same doctor twice. This is quite expensive and only the acute problem is treated. In talking with the parent we could often advise them about the best source of treatment and urge them
to be consistent about returning to the same place.

7) Frequently the problem of communication gaps between the center staff and nurse was eliminated. When the parent received the message directly at the time of the screening they understood better the reasons for follow-up. The center staff was urged and encouraged to take part in the screening. In some centers this was utilized as a time for a parent-teacher conference. The teachers were trained to use the Denver Developmental Screening Test, and they could thereby provide valuable information about the child.

There are many advantages to this type of screening program:

1) Even within the confines of a limited budget and limited staff time a large number of children can be screened.

2) The children, parents and day care staff are all involved.

3) Because the children are screened in their natural setting with the most important people in their lives with them, they are much less apprehensive about the procedures. It is very
rewarding to see how the children actually become your friend. Each time I walk into a center, they all crowd around and begin asking, "Am I going to be screened today?" or, "Are you going to stick my finger today?" At a very young age, they begin to understand the need for health care, and are not alarmed at the thoughts of being examined by a doctor or nurse.

Parents are actually encouraged to take more responsibility for the health care of their children. Prior to beginning this program, about one-third of the children had not received their immunizations, even though the parents were questioned for the record and were encouraged to obtain them. Within one month after enrollment, immunizations have been started or updated and at this time almost one-hundred percent have been immunized. When the child receives the initial screening the parent is instructed when to bring the child back. The responsibility is put on the parents to obtain the appropriate immunization when they pick the child up.
At first, they had to be reminded over and over about this, but as time goes on, with the continued on-going education, they are assuming the responsibility themselves.

Their increased interest has been demonstrated by the requests I receive to speak at parent meetings. Often, the parents select the subject they would like me to discuss.

I cannot stress enough the important role the center staff played in making this program effective. They made the initial contacts with the parents, scheduled them for the screening and continued the follow-up. They are the ones who have the most contact with the parents and children, and the success of the program in the individual centers was an indication of their commitment to the program. They would often accompany the parent and child for the screening and many times they provided the encouragement that led parents to seek the help they needed.

Another important aspect of the program was the coordination between existing local agencies involved in the total care of the child. Before beginning the screening program we made many contacts with agencies that would accept our referrals. We found this made a tremendous difference when we referred the children.

At this time, I would like to go over some of the results of the screening.
Results of screening - 1975.

See Table #1

Results of screening - 1976.

See Table #2

As you can see the percent of referrals in 1976 was lower than in 1975. This is partially because many corrections had already been made, and also reflects a more stable enrollment in some of the centers. The number of children for whom we have no record of follow-up usually corresponds to withdrawals from the center. Due to lack of additional staff we cannot follow up after they leave the center. If the child is on Medical Assistance we do notify the Bureau of Social Services and hopefully they will contact the parent.

We have demonstrated that day care centers are ideal places to develop an early screening program. If all children could be screened at this early age, there would not be as many problems later when the child goes to school. At this young age they are learning so rapidly that even a short period of deficient vision or hearing can seriously affect the child's ability to learn and to develop physically and mentally. Within the day care center are found all the necessary elements: the child, his parents, the significant persons with whom he spends a large part of his day, and the knowledge provided by project consultants. The community, with its resources, provides a supportive network for this intervention. A project such as this can act as a catalyst in bringing together these elements in a productive,
stimulating and helpful way for the ultimate benefit of the child.

PREPARED BY:

ELIZABETH GREVER, R.N., P.N.A.

COMMUNITY COORDINATED CHILD CARE
1355 SOUTH THIRD STREET
LOUISVILLE, KENTUCKY 40208
PHONE: (502) 636-1358
TABLE I
RESULTS OF SCREENING 1975

<table>
<thead>
<tr>
<th>Assessment</th>
<th># Screened</th>
<th># Referred</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISTORY AND PHYSICAL</td>
<td>513</td>
<td>40</td>
<td>7.8</td>
</tr>
<tr>
<td>VISION</td>
<td>501</td>
<td>20</td>
<td>4.0</td>
</tr>
<tr>
<td>HEARING</td>
<td>477</td>
<td>18</td>
<td>3.9</td>
</tr>
<tr>
<td>DENTAL</td>
<td>513</td>
<td>12</td>
<td>2.3</td>
</tr>
<tr>
<td>KIDNEY</td>
<td>401</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>T.B. SKIN TEST</td>
<td>509</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ANEMIA**</td>
<td>513</td>
<td>6</td>
<td>1.2</td>
</tr>
<tr>
<td>SICKLE CELL***</td>
<td>277</td>
<td>18</td>
<td>6.5</td>
</tr>
<tr>
<td>LEAD</td>
<td>436</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>513</td>
<td>123</td>
<td>24</td>
</tr>
<tr>
<td>IMMUNIZATIONS</td>
<td>513</td>
<td>153</td>
<td>29.8</td>
</tr>
</tbody>
</table>

*Referrals were made for such conditions as: allergies, skin rashes, ear infections, enlarged liver, hernia, circumcision, foreign bodies in ears, growth retardation, orthopedic problems, heart murmur, et cetera.

**In addition to the six who were referred because of low hematocrit, 34 parents received dietary counseling.

***Received counseling from Kentucky State Department of Health.
### TABLE II

**RESULTS OF SCREENING 1976**

|                      | # Screened | # Rechecks | # Ref. | F | O | L | O | W | U | L | T | O | R | E | A | T | E | D | N | T | E | X | T | A | N | S | I | C | E | S | I | O | M | A | C | E | S |
| **HISTORY AND PHYSICAL ASSESSMENT** | 432 | 130 | 36 | 8 | 25 | 5 | 6 |
| **VISION** | 423 | 4 | 20 | 4 | 9 | 3 | 8 |
| **HEARING** | 423 | 12 | 12 | 2 | 9 | - | 3 |
| **DENTAL** | 432 | - | 10 | 2 | 8 | - | 2 |
| **KIDNEY** | 248 | 5 | 0 | - | - | - | 8 |
| **T. B. SKIN TEST** | 215 | 2 | 0 | - | - | - | - |
| **ANEMIA** | 421 | 1 | 3 | - | 3 | 8 |
| **SICKLE CELL** | 136 | 1 | 8 | - | 5 | 8 |
| **LEAD** | 335 | 91 | 4 | 1 | 3 | 1 | 0 |
| **IMMUNIZATIONS** | 154 | 57 | 42 | - | - | - | - |
| **TOTALS** | 432 | 303 | 93 | 225 | 65 | 9 | 27 |

*EG: sd*
Health assessment and screening may be obtained from private physicians of your choice and Louisville and Jefferson County Department of Public Health, 400 East Gray Street. (Call 584-5281 for schedule of clinics)

For more information concerning agencies providing services to children see the parent coordinator or nurse at the center.

Community Coordinated Child Care of Louisville and Jefferson County
1355 South 3rd Street
Louisville, Kentucky 40203
Telephone (502) 636-1358

Provided by:
Community Coordinated Child Care (4-C) in cooperation with The Visiting Nurse Association (VNA)
**Why Health Care in Day Care?**

Some of the reasons health care is important:

1. Every child is entitled to the opportunity to reach his full potential both mentally and physically.

2. A great emphasis is being placed on preventive health care. Early identification of possible health problems can help avoid serious illnesses.

3. Children in day care should be protected as much as possible from exposure to disease.

4. A good health history can help teachers understand children placed in their care. The teacher should know what to expect and what to do in case of an emergency.

5. Immunization against communicable diseases can help protect a child from these diseases.

6. High concentration of lead in the blood can cause brain damage if not treated early.

7. Problems with vision and hearing can often decrease a child's ability to learn and develop socially.

8. The health of the child has a great effect on his learning and many times the teacher or nurse may be able to help provide guidance about needed treatment and places to get good treatment.

A Pediatric Nurse Associate from 4-C and V.N.A. will be here each month to provide health screening for your child and to discuss with you any problems you might have. Because you are the most important person in your child's life, we are asking that you be present for the child's screening. Under medical direction the following screening services are being provided:

1. Basic Health and developmental assessment

2. Dental assessment

3. Updating immunizations

4. Vision and hearing screening

5. Urinalysis

6. Tuberculin skin test

7. Screening for anemia and sickle cell disease or trait.

8. Screening for lead poisoning

Parents who prefer to have their child examined by their own doctor, are encouraged to do so and to give the center a statement from the child's doctor.

We are looking forward to meeting each of you and welcome the opportunity to help you. Our goal is to improve the quality of day care for your child.

Libby Grever, R.N., P.N.A.
Ronald L. Lehocky, M.D., Medical Director