THE HISTORY OF PROGRAMS FOR ORTHOPEDICALLY HANDICAPPED CHILDREN IS REVIEWED, INCLUDING KINDS AND EXTENT OF SERVICES. GUIDELINES FOR ESTABLISHING AN ORTHOPEDIC PROGRAM ARE GIVEN AND THE TEAM APPROACH IS DISCUSSED. CHANGES IN THE HANDICAPPED POPULATION AND IN THE NEEDS FOR APPROPRIATE SERVICES ARE NOTED. THE APPENDICES INCLUDE INFORMATION ABOUT LEGAL PROVISIONS, STATE BOARD OF EDUCATION STANDARDS, TEACHER CERTIFICATION, BOARDING HOMES FOR PHYSICALLY HANDICAPPED CHILDREN, AND TRANSPORTATION. (GB)
ORTHOPEDICALLY HANDICAPPED CHILDREN
IN OHIO PUBLIC SCHOOLS

Issued by

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Superintendent of Public Instruction
Ohio Department of Education
Columbus 15, Ohio

1964
FOREWORD

The program for Orthopedically Handicapped Children has been in existence in the State of Ohio for over forty years. During this time, the program has expanded and developed to meet the ever changing needs of the handicapped child. Changing concepts in medicine, education, and habilitation have created the need for new approaches in the classroom. Ancillary services such as occupational therapy and physical therapy are now included in the daily school program. Psychological testing and parent counseling have provided a better understanding of the problems of the physically handicapped child.

This bulletin has been prepared to provide information relative to Ohio's program for the Orthopedically Handicapped.

R. A. Horn
Director
Division of Special Education

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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ACKNOWLEDGEMENTS

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Columbus, Ohio
June 1964

Herman Menapace
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HISTORY OF ORTHOPEDIC PROGRAM

Shortly after the turn of the century, a group of young people in Cleveland, Ohio, organized a kindergarten for crippled children. Later, the first program was expanded to include classes for those of school age. In 1910, the Board of Education in Cleveland took over the operation of the school with 63 children enrolled. The purpose of the school was not only to educate, but also to furnish opportunities for corrective treatments, necessary exercise, and proper rest periods. The program of special classes for handicapped children in the State of Ohio was thus officially started.

In 1918 the Cleveland Board of Education employed an orthopedic director to handle the public school program for crippled children in that city. The orthopedic director had a physical education major, special training in corrective gymnastics and experience in teaching. This could probably be considered the beginning of physical therapy in the public schools.

In 1917 Dayton opened a special school for crippled children and in 1919 Cincinnati opened a similar school.

Interest in the problems of the handicapped child was growing throughout the state. On May 8, 1919, the Ohio Society for Crippled Children was founded in Elyria. The society grew rapidly and exercised a watchful eye over crippled children.

Prior to 1919, no legislation was provided for the crippled child. The first law for handicapped children was enacted in 1919. It provided for a broader program for the deaf and blind children in the state and added provisions for crippled children. This legislation established a new type of state financial aid for these programs, and included provisions for home instruction for children who could not attend school. Thus, House Bill No. 716 committed Ohio to a total school program for handicapped children. The legislation allowed $150 excess cost per pupil. This Special Education Law stimulated the opening of additional classes in various parts of the state and afforded more crippled children an educational opportunity.

The Division of Special Education had its beginning in 1924 when a supervisor was appointed in the Department of Education to administer the special education program. Prior
to 1921, there was no state program of administration and
supervision, although some subsidy had been made available
for special classes in 1913 when the first state appropriation
was made for $46,000.

Crippled children services were well established in Ohio
by the early 1930's. Laws governing detection, physical care,
treatment, and special education were in operation. Public school
classes for crippled children were established in various parts
of the state. Children needing the special placement could re-
main fairly close to their families. Special classes for crippled
children were then a part of the local school system in which
they were maintained.

Total enrollment reached a peak in the 1955-1956 school
year. Then, in 1955, Dr. Jonas Salk introduced his vaccine
for poliomyelitis. At the same time, medical science was making
strides in the use of chemotherapy with tuberculosis patients.
This progress has greatly changed the program for crippled
children. Today, there is only one unit in a tuberculosis sanitarium in Ohio. Enrollments in hospital units have also steadily
decreased. Table 1 shows the total enrollment in special classes
for crippled children since the 1950-1951 school year.

TABLE 1
ENROLLMENTS IN CLASSES FOR CRIPPLED
CHILDREN

<table>
<thead>
<tr>
<th>Year</th>
<th>School</th>
<th>Hospital</th>
<th>T. B. Sanitariums</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950-1951</td>
<td>1373</td>
<td>663</td>
<td>155</td>
</tr>
<tr>
<td>1951-1952</td>
<td>1369</td>
<td>580</td>
<td>137</td>
</tr>
<tr>
<td>1952-1953</td>
<td>1425</td>
<td>667</td>
<td>143</td>
</tr>
<tr>
<td>1953-1954</td>
<td>1500</td>
<td>671</td>
<td>213</td>
</tr>
<tr>
<td>1954-1955</td>
<td>1446</td>
<td>631</td>
<td>237</td>
</tr>
<tr>
<td>1955-1956</td>
<td>1483</td>
<td>618</td>
<td>222</td>
</tr>
<tr>
<td>1956-1957</td>
<td>1143</td>
<td>217</td>
<td>83</td>
</tr>
<tr>
<td>1957-1958</td>
<td>1162</td>
<td>253</td>
<td>67</td>
</tr>
<tr>
<td>1958-1959</td>
<td>1180</td>
<td>246</td>
<td>50</td>
</tr>
<tr>
<td>1959-1960</td>
<td>1146</td>
<td>276</td>
<td>16</td>
</tr>
<tr>
<td>1960-1961</td>
<td>1158</td>
<td>143</td>
<td>16</td>
</tr>
<tr>
<td>1961-1962</td>
<td>1044</td>
<td>130</td>
<td>20</td>
</tr>
<tr>
<td>1962-1963</td>
<td>943</td>
<td>111</td>
<td>20</td>
</tr>
</tbody>
</table>
Changes in medicine are reflected in the steadily declining enrollments. The greatest decreases have occurred in hospital and sanitarium classes.

In the 1962-1963 school year 20 city school districts provided educational services for crippled children. There were 74 teacher units with a total enrollment of 943 pupils. Table 2 indicates the number of teachers and children enrolled in the program by school district.

**TABLE 2**

**NUMBER OF TEACHERS AND ENROLLMENTS**

**FOR THE 1962-63 SCHOOL YEAR**

<table>
<thead>
<tr>
<th>School District</th>
<th>Number of Teachers</th>
<th>Number of Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akron</td>
<td>4</td>
<td>61</td>
</tr>
<tr>
<td>Barberton</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Canton</td>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>Chillicothe</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>12</td>
<td>156</td>
</tr>
<tr>
<td>Cleveland</td>
<td>14</td>
<td>199</td>
</tr>
<tr>
<td>Columbus</td>
<td>7</td>
<td>115</td>
</tr>
<tr>
<td>Dayton</td>
<td>7</td>
<td>79</td>
</tr>
<tr>
<td>Elyria</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Hamilton</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Mansfield</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Marion</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Middletown</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Newark</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Springfield</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Steubenville</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Toledo</td>
<td>12</td>
<td>145</td>
</tr>
<tr>
<td>Warren</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Youngstown</td>
<td>3</td>
<td>41</td>
</tr>
<tr>
<td>Zanesville</td>
<td>2</td>
<td>17</td>
</tr>
</tbody>
</table>

|          | 74                | 943               |

Physical and Occupational Therapy are a necessary and integral part of supportive service in educational programs for crippled children. In the 1962-1963 school year, thirteen city school districts employed 23 physical therapists. Seven
school districts offered occupational therapy. Table 3 indicates the number of physical and occupational therapists by school district.

TABLE 3
NUMBER OF PHYSICAL AND OCCUPATIONAL THERAPISTS BY SCHOOL DISTRICT
1962-63

<table>
<thead>
<tr>
<th>School District</th>
<th>P. T.</th>
<th>O. T.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akron</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Canton</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Chillicothe</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Cincinnati</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Cleveland</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Columbus</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Dayton</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Newark</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Springfield</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Steubenville</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Toledo</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Youngstown</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Zanesville</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>23</td>
<td>9</td>
</tr>
</tbody>
</table>

The philosophy of the Division of Special Education has been to place crippled children in the regular classroom whenever possible. In order to insure that the crippled child may be successful in the regular classroom, it is necessary to assess his mental and physical abilities. A child of above average intelligence may have physical limitations which make regular class placement impossible. Others may possess the physical mobility but not the mental capacity.

In general, the program has been fairly successful in returning crippled children to regular classrooms. However, there now appears to be an increase of multi-handicapped children which may necessitate changes in educational philosophy in the future.
REVIEW OF NEURO-ANATOMY

Injuries to the nervous system may result either in the abolition of function, as seen in flaccid paralysis with poliomyelitis, or in deviation of control as seen in cerebral palsy. In order to explain such conditions, it will be necessary to differentiate between an upper motor neuron lesion (central nervous disorder) and a lower motor neuron lesion (peripheral nervous disorder).

The peripheral nervous system is composed of 12 pairs of cranial nerves, 31 pairs of spinal nerves, and the sympathetic nervous system. These pairs of nerves are composed of afferent and efferent fibers. Sensory impulses produced either by external or internal stimuli travel on afferent fibers to various levels of the cord and the brain.

The all important link which connects the central nervous system with the lower motor system is the neuron. The neuron is considered the structural and functional unit of the nervous system. A neuron consists of a nerve cell (axon) and its processes (dendrites). A chain of neurons forms conduction pathways for the transmission of nerve impulses. The impulse is propagated from one cell to another at the synapse which is the place where one axon of one nerve terminates in the cell body or dendrites of another. Nerve impulses pass across the synapse in one direction.

The anterior or ventral horn cell of the spinal cord contains cells of origin of the motor nerves on which impulses are conducted to the muscles stimulating them to contract. The cells of origin of the sensory nerves are not in the posterior horn but in the dorsal ganglion, a nodule of nerve cells just outside the cord.

If a nerve fiber is separated from its cell of origin it will degenerate. Thus, if the anterior horn cell is damaged, motion is affected. If the dorsal ganglion is injured, sensation is affected.

The motor neurons located in the anterior horn cell are called lower motor neurons, while those starting in the brain area are called upper motor neurons.

Although movement is stimulated by the impulse which is conducted from the anterior horn cell, control of movement comes from the upper motor areas in the brain. Therefore, when injury of the upper motor neuron occurs, as in cerebral
palsy, alteration of control rather than abolition of function results. The lower motor neuron is intact but cannot function normally because it is uncontrolled.

The character of the disturbance of motor control is related to an injury of the upper motor neuron and depends upon the site of the injury and the extent of the damage.

Injuries in the motor cortex area result in a spastic paralysis. Spasticity means that the brain cannot inhibit the action of the antagonist muscle that is attempting to relax to permit movement.

Control of associated movements comes from the basal ganglia and the pathways leading from this area. Injury in this area results in the purposeless, involuntary movement called athetosis.

Injury in the cerebellum results in loss of balance, equilibrium, and spatial relationships called ataxia.

More than one area of the brain may be damaged resulting in a combination of the above conditions. Other areas of the brain may also be damaged causing certain learning problems and behavioral syndromes, but this review is pertinent to the areas that control muscle function.

Cerebral palsy embraces the clinical picture created by injury to the brain, in which one of the components is motor disturbance. Cerebral palsy takes different forms with different neuromotor disabilities. Clinically, the medical profession has differentiated the following describable syndromes: (1) spasticity (2) athetosis (3) ataxia (4) rigidity (5) tremor and (6) mixed.

The etiological factors of cerebral palsy may be prenatal, perinatal, or postnatal.

Cerebral damage during the prenatal period may be caused by genetic conditions, metabolic disturbances of the mother, and the RH factor.

Compression of the umbilical cord, breech delivery, placenta previa, and brain hemorrhage are causes of cerebral damage during the perinatal period. Conditions causing cerebral damage during the postnatal period involve diseases, such as encephalitis and meningitis; high fevers resulting from typhoid, diphtheria, pertussis, and influenza; traumatic injury; neoplasms; anoxia.

In the treatment of cerebral palsy, there is no specific measure that will cure the damage inflicted in the brain. In
untreated cases, slow spontaneous improvement in the use of the extremities often takes place as motor experience and better control are acquired during the years of childhood.

Continuous treatment usually results in more rapid and more extensive improvement. Since the ability to co-operate and to learn is essential to effective treatment, the rate of improvement will depend not only upon the severity of the condition, mental capacity, and parent-child co-operation.

Poliomyelitis is an infectious disease caused by a filterable virus. Polio generally affects a lower motor neuron and usually results in a flaccid paralysis.

The treatment of polio is well established. The rate of improvement is directly related to the amount of damage to the lower motor neuron.

In 1955, Dr. Jonas Salk introduced an intra-muscular vaccine for polio. More recently Dr. Albert Sabin introduced the oral vaccine. It is reasonable to assume that with the widespread use of these vaccines, polio will no longer be the frequent cause of crippling conditions.

Progressive muscular dystrophy is commonly used to include a number of neuromuscular disorders. The most common is the pseudohypertrophic form.

This affliction appears most frequently at about the age of five and is seen almost exclusively in males. The etiology of this malady is unknown. Authorities believe it is due to an intrinsic nutritional defect of the muscles. Heredity is believed to be related to the incidence of this illness. The first symptom is often weakness of the legs and fatigue. The child stands with an obvious increase of lumbar lordosis, walks with a waddling gait, has difficulty in climbing steps, and falls frequently.

The disease is progressive in nature, resulting in total inability to walk at about the age of 12. There has been no effective treatment for this condition. Recently some physicians have been applying braces to these children so that they can continue to walk. No adverse effects have been reported. This method permits some children to walk to five years longer than previously possible.

Spina Bifida is a congenital anomaly consisting of a developmental gap or defect in one or more of the vertebral arches. The contents of the spinal canal may protrude.

In some cases surgery is done to close the gap but as a rule surgery will not improve function. Generally, the rehabili-
Ration facets of spina bifida are the same as with traumatic paraplegia.

Cardiac conditions are not crippling in a neuromuscular sense, but heart conditions may limit a child's physical activity.

These children are assigned to the orthopedic program because they need rest periods and limitation of activity. Most of them will eventually be able to attend regular school.

Cardiac conditions are the result of some congenital anomalies or rheumatic fever.

The treatment of heart defects has been chiefly medical and surgical. However, some additional value can be received from the paramedical services which are available in orthopedic programs.

Table 4 includes the majority of physical conditions necessitating placement in an orthopedic program.

<table>
<thead>
<tr>
<th>Medical Diagnosis</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cerebral Palsy</td>
<td>37.46</td>
</tr>
<tr>
<td>Polio</td>
<td>16.72</td>
</tr>
<tr>
<td>Abnormal Heart Condition</td>
<td>11.18</td>
</tr>
<tr>
<td>Spina Bifida and Paraplegia</td>
<td>6.65</td>
</tr>
<tr>
<td>Muscular Dystrophy</td>
<td>6.75</td>
</tr>
<tr>
<td>Legg-Perthes</td>
<td>2.63</td>
</tr>
<tr>
<td>Congenital Deformities</td>
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<tr>
<td>Hydrocephalus</td>
<td>1.00</td>
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<tr>
<td>Hemophilia</td>
<td>1.32</td>
</tr>
<tr>
<td>Rheumatoid Arthritis</td>
<td>.90</td>
</tr>
<tr>
<td>Sickle Cell Anemia</td>
<td>1.22</td>
</tr>
<tr>
<td>Osteogenesis Imperfecta</td>
<td>.90</td>
</tr>
<tr>
<td>Congenital Amyotonia</td>
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</tr>
<tr>
<td>Achrondroplasia</td>
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<tr>
<td>Arthrogryposis</td>
<td>.70</td>
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<tr>
<td>Meningocele</td>
<td>.70</td>
</tr>
<tr>
<td>Scoliosis</td>
<td>.60</td>
</tr>
<tr>
<td>Asthma</td>
<td>.80</td>
</tr>
<tr>
<td>Equinovarus</td>
<td>.90</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>6.75</td>
</tr>
</tbody>
</table>

TOTAL 100.00
ESTABLISHING AN ORTHOPEDIC PROGRAM

Orthopedic classes in the State of Ohio have been in existence for over four decades. During this time, the majority of classes have been organized at the elementary level, and children have been integrated into the regular classroom when possible.

Today, the orthopedic school program presents a different problem. We are faced with many children who are more severely handicapped. It appears that many of these children will never be physically able to attend regular classes.

Organization of classes has not been a major problem in the large metropolitan areas where there are more crippled children. School districts with a smaller total enrollment may have difficulty in meeting the established standards for orthopedic classes.

Any school district in Ohio may have a program for crippled children. In order for a school district to participate, minimum requirements as set forth by the State Board of Education must be met. Before any plans to organize a program are instituted, the school district should consider the following: Names and diagnoses of children who possibly qualify, mental ability of each child, availability of teachers, availability of supportive services, physical facilities that can be utilized by crippled children, necessary equipment, transportation, and boarding facilities.

One of the objectives of the Division of Special Education is to provide services and educational opportunities for crippled children equal to those for the normal child. Regardless of the handicap, emphasis should be on the child rather than the crippling condition.

Eligibility for placement requires that a child be under the care of a qualified physician and have sufficient mental maturity to profit from instruction. Special services required by the pupil are determined by the child's physician. Physical or occupational therapy requires a medical prescription.

The local administrator should place children in special classes if the children have orthopedic or neuromuscular conditions requiring special building facilities, or if the children require protective care, and if they require physical or occupational therapy.

One of the basic requirements for placement in the ortho-
pedic program, along with the crippling condition, is that the child have an I.Q. of 70 or above. If the child should test below a 70 I.Q., a different type of program is indicated.

A complete psychological evaluation is more representative of the child's ability than a test score.

The areas of evaluation should include:
- Visual perception
- Auditory perception
- Memory
- Motor development
- Like and differences
- Practical reasoning
- Abstract reasoning
- Comprehension
- Knowledge of word meaning
- Attention
- Language facility
- Reading and arithmetic

In general, the children enrolled in the orthopedic program are of low average mental ability as measured by tests of intelligence. Data for the 1961-62 school year show a median I.Q. of 91. Table 5 shows the I.Q. distribution by physical handicap.
TABLE 5
TOTAL ENROLLMENT FOR EACH DIAGNOSIS AND MEDIAN I. Q. FOR THE 1961-62 SCHOOL YEAR

<table>
<thead>
<tr>
<th>Medical Diagnosis</th>
<th>No. of Children</th>
<th>I. Q. Median</th>
</tr>
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<tbody>
<tr>
<td>Cerebral Palsy</td>
<td>372</td>
<td>87</td>
</tr>
<tr>
<td>Polio</td>
<td>166</td>
<td>99</td>
</tr>
<tr>
<td>Abnormal Heart</td>
<td>111</td>
<td>89</td>
</tr>
<tr>
<td>Spina Bifida And Paraplegia</td>
<td>66</td>
<td>98</td>
</tr>
<tr>
<td>Muscular Dystrophy</td>
<td>67</td>
<td>90</td>
</tr>
<tr>
<td>Legg Perthes</td>
<td>26</td>
<td>102</td>
</tr>
<tr>
<td>Congenital Deformities</td>
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<td>82</td>
</tr>
<tr>
<td>Hydrocephalus</td>
<td>10</td>
<td>82</td>
</tr>
<tr>
<td>Hemophilia</td>
<td>13</td>
<td>99</td>
</tr>
<tr>
<td>Rheumatoid Arthritis</td>
<td>9</td>
<td>89</td>
</tr>
<tr>
<td>Equinovarus</td>
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<tr>
<td>Congenital Amyotonia</td>
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<td>101</td>
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<tr>
<td>Meningocele</td>
<td>7</td>
<td>90</td>
</tr>
<tr>
<td>Scoliosis</td>
<td>6</td>
<td>97</td>
</tr>
<tr>
<td>Asthma</td>
<td>8</td>
<td>92</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>67</td>
<td>93</td>
</tr>
<tr>
<td><strong>ALL CHILDREN</strong></td>
<td><strong>993</strong></td>
<td><strong>91</strong></td>
</tr>
</tbody>
</table>

The crippled child is usually retarded in academic grade placement because of poor health, surgery, long periods of absence from school, and time spent out of the classroom for therapy. An unpublished study, conducted in the 1961-1962 school year, indicated that a large number of crippled children is one or more years behind in their grade placement for their chronological ages. Table 6 shows age-grade displacement found in the 1961-1962 school year.
## Table 6

Medical Diagnosis, Total Enrollment for Each Diagnosis and a Breakdown of Children With Normal Placement and Grade Displacement for 1961-62 School Year

<table>
<thead>
<tr>
<th>Medical Diagnosis</th>
<th>Total Number of Children</th>
<th>No. of Children With Normal School Placement</th>
<th>No. of Children with Grade Displacement</th>
<th>Total No. With Grade Displacement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 Year</td>
<td>2 Year</td>
</tr>
<tr>
<td>Cerebral Palsy</td>
<td>372</td>
<td>95</td>
<td>116</td>
<td>97</td>
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<tr>
<td>Polio</td>
<td>166</td>
<td>90</td>
<td>53</td>
<td>16</td>
</tr>
<tr>
<td>Abnormal Heart</td>
<td>111</td>
<td>30</td>
<td>40</td>
<td>33</td>
</tr>
<tr>
<td>Spina Bifida and Paraplegia</td>
<td>66</td>
<td>25</td>
<td>24</td>
<td>11</td>
</tr>
<tr>
<td>Muscular Dystrophy</td>
<td>67</td>
<td>21</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>Legg Perthes</td>
<td>26</td>
<td>19</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Congenital Deformities</td>
<td>15</td>
<td>7</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Hydrocephalus</td>
<td>10</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Hemophilia</td>
<td>13</td>
<td>9</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Rheumatoid Arthritis</td>
<td>9</td>
<td>2</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Equinovarus</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Sickle Cell Anemia</td>
<td>12</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Osteogenesis Imperfecta</td>
<td>9</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Congenital Amyotonia</td>
<td>11</td>
<td>7</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Achondroplasia</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Arthrogryposis</td>
<td>7</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Meingiocele</td>
<td>7</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Scoliosis</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Asthma</td>
<td>8</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>67</td>
<td>26</td>
<td>19</td>
<td>16</td>
</tr>
</tbody>
</table>
The instructional needs of physically handicapped children are generally the same as for normal children. It is advisable to follow a regular course of study using the same teaching techniques as found in regular classrooms. There may be a need for certain adaptations of equipment so that the children can function.

The responsibility of a school involves more than providing academic instruction for the crippled child. The physical and emotional conditions of each child are as important as the instructional program. Although crippled children are in school for educational purposes, many need additional services. Physical therapy, occupational therapy, speech therapy, and psychological service should be incorporated into the total educational program as needed.

In smaller communities, where there are fewer crippled children, it is difficult to provide the needed supportive services. A co-operative plan may be worked out with a hospital or clinic in the area to give such services as needed. Although this type of program may be the best the community can arrange, it is not the most effective and efficient method. Children who are taken from the classroom and transported to a clinic for services lose valuable school time in travel. The continuity of the program may also be lost in the change of environment.

The most effective and efficient program maintains the supportive services in the same building as the academic instruction. These programs integrate service and education. A very close relationship must exist between the principal, teacher, therapist, psychologist, and physician so that pertinent information concerning progress of a child can be shared.

If a child starts schooling in the Orthopedic Program and sufficient physical and academic progress has been achieved, the child should have a chance to participate and compete with physically normal children. It is the responsibility of everyone who deals with handicapped children to do whatever is possible to help them make the necessary adjustments so that they can compete to the best of their abilities with others.

It should be realized that every crippled child in an Orthopedic Program cannot be expected to be integrated into the regular classroom. Although some of these children will remain in self-contained orthopedic classrooms, the basic objective is to encourage maximum physical and academic development.
OCCUPATIONAL AND PHYSICAL THERAPY

The whole child must be considered in planning any educational program. Because of physical disabilities such as cerebral palsy, arthritis, muscular dystrophy, poliomyelitis and congenital anomalies, some children require special services other than those provided by a regular school. It is effective and efficient practice to have the service of occupational and physical therapy available in the same building as the classroom for crippled children. These services are an integral part of program planning. The children can receive the prescribed treatments with a minimum loss of time from their academic work.

The overall aims of occupational therapy and physical therapy are the same, to help the child gain the abilities which permit him to live as nearly a normal and active life as possible. The two therapies are interrelated. They both test and evaluate the physical ability of the child, strengthen specific muscle groups, improve coordination, teach activities of daily living and help to improvise necessary equipment.

When both services are available, the occupational therapist is primarily concerned with activities such as feeding, dressing, personal hygiene, writing and typing. The physical therapist’s stress is on sitting and standing, balance, ambulation, and transfer activities as well as other specific treatment prescribed by the attending physician.

Occupational Therapy

Occupational therapy is a medical service using therapeutic activities, mental and physical, involving individual and group techniques, as well as evaluating procedures in treating children. Professionally trained occupational therapists administer their services under the direct prescription and guidance of a qualified physician.

The occupational therapy department in the public school operates on the same schedule as the classroom and is an integral part of the school program.

The same basic principles of education involved in teaching the academic subjects apply to the teaching of skills related to motor and perceptual development. Since motivation is basic to all aspects of education and treatment, careful planning is needed to elicit co-operation from the child and parents.
The therapist's ingenuity and initiative, knowledge of basic principles, and correlation of techniques with equipment are used in planning and carrying out the prescribed treatment. Essential to the program is the therapist's awareness of research in the physical and behavioral sciences and the research guides that evaluate specific syndromes of disfunction. This information is necessary for establishing realistic goals for the parent and the child and improving therapeutic procedures.

Activities are planned to develop self-help skills, to provide a means of communication, to increase muscle strength and range of motion, to encourage coordination and perceptual motor development, to aid in social and emotional development, and to evaluate vocational assets. Depending on the child's handicap, emphasis may be in one or more of these areas.

Self-Help Skills

The child must attain maximum independence in the area of self-help skills to realize optimum goals in physical and mental health. These skills are acquired through training and practice. Some examples of self-help skills are dressing, eating, toilet activities, and personal hygiene.

Means of Communication

The child with multiple handicaps may have poor or illegible writing. He may be unable to write because of poor coordination, lack of muscle power and perceptual difficulties, or he may write so slowly that writing is not a practical tool. The goal of the therapist is to provide for communicative development so that the child may participate in the classroom. Pointing or indicating comprehension, writing practice, developing a language board and typing are methods used to improve communications.

Muscle Strength and Range of Motion

The activity and equipment used by the therapist depend upon the muscles involved and the motion desired. The motivation for a desired motion comes from interest in the activity used. A few modalities are mentioned to give a general idea of how an occupational therapist uses material, equipment, and activities.

Examples of therapeutic activities are ceramics, woodwork-
ing, weaving, braiding, and water play. Therapeutic devices which are commonly used are splints, ball bearing and resist-
ive feeders, weights and built-up handles.

Coordination

Children with motor involvement may have perceptual and conceptual difficulties. Training is done with multi-sensory experiences (visual, auditory, tactile, and kinesthetic) in order to obtain simple and complex controlled muscle function. Finger painting, weaving and woodworking are excellent examples of activities involving gross coordination. Some examples of activities involving visual motor development are rhythms, play activities requiring body orientation in space, tracing, coloring, use of the chalk board, and manipulating educational toys. Writing, needle craft, and model construction are activities the therapist may use to develop fine coordination.

Social and Emotional Development

Children with handicaps may not have the opportunity or physical capacity to participate in activities that lead to social and emotional development. The occupational therapist helps to provide these activities through organized and directed play, games and contests, and by encouraging the children to work in groups. Developing clubs and organizing class projects provide splendid opportunities for stimulating social growth.

Through the therapist's training in skills, self-care, and work attitudes, the foundation is laid for future vocational guidance and job training. Good work habits, care and use of equipment and materials, speed and accuracy, responsibility and initiative, may all be developed as the child participates in the occupational therapy program.

Special Equipment

Equipment and facilities in a special education unit frequently have to be modified so that the child can perform at his maximum physical and mental ability. In this area, the occupational therapist must be ingenious and creative. This particular function may be carried on without a medical prescription, but the child's physical condition must be kept in mind when making any equipment modifications. Following are some examples of typical equipment which may require modification: Chairs and work surface; writing devices such as crayon
and pencil holders; typing tools and typing dowels; reading equipment such as page turners and book racks; aids for dressing, undressing, eating, and personal hygiene.

Physical Therapy

Physical therapy is a medical service administered by professionally trained personnel under the prescription and guidance of a qualified physician. It deals with the prevention, correction, and alleviation of disease and effects of injury. Through the use of physical agents such as heat, cold, light, water, electricity, massage and therapeutic exercise, the crippling effect of many diseases and injuries can be lessened or overcome.

The physical therapy department in the public school operates on the same schedule as the classroom and is an integral part of the school program.

The same basic principles of education which are involved in teaching an academic subject apply to the teaching of a motor activity. Motivation is basic to all aspects of treatment. This requires careful planning and the child needs help in developing a “will to do.”

The therapist performs testing procedures used in evaluating muscle strength, range of joint motion and function, in developing exercise programs for improving strength and coordination, in giving training in activities of daily living, and shares in the responsibility for the proper fitting and maintenance of braces and other equipment used by the child.

The therapist’s ingenuity and initiative, knowledge of basic principles, and correlation of techniques with equipment, are used in planning and carrying out the prescribed treatment.

Physical Status

Before a treatment program is planned, the child’s physical activities and limitations are evaluated. On the basis of the diagnosis, the therapist selects the appropriate techniques and equipment. The tests and measurements used to evaluate the physical status include the manual muscle test, the joint range of motion test, the functional activity test, and the electrical test.

Alleviation of Pain and Increase in Circulation

Heat, in any form, is applied to increase circulation to alleviate pain, and to make tissue more pliable. The physical
therapist must know the indications and the contra-indications for all forms of heat. Some of the modalities used are infrared, diathermy, whirlpool, and moist heat pads.

**Range of Motion**

Children who are not able to perform normal motor activities or who show an imbalance of muscle strength tend to develop contractures. To maintain or to increase range of joint motion, a therapist may use a variety of modalities and equipment such as: therapeutic exercise, stretching, neuro-muscular facilitation, pulleys, and bicycling.

**Strength**

When a muscle weakness or imbalance exists, a strengthening routine is indicated. In some cases particular attention must be given to isolate the weak muscle and to exercise it; in other cases muscles may be exercised in group patterns. There are many exercise routines and modalities used to increase strength, but basically, exercises are classified as passive, active-assistive, active, or resistive.

**Coordination**

Children with motor involvement may have problems with coordination. It is essential to provide and to regulate harmonious action. The physical therapist is interested in controlled muscle function which leads to greater independence. This can be accomplished through reciprocal and contra-lateral exercise, therapeutic exercise, bicycling, suspension slings, rhythm activities, and games.

**Functional Training**

Generally, functional training applies to activities which require balancing, standing, walking, and transfer activities. To strengthen and coordinate both the upper and lower extremities as well as the trunk the therapist may use standing tables, parallel bars, skis, stabilizers, crutches, walkers, stair climbing, and mat activities.

**Special Equipment**

Equipment and facilities in a special education unit frequently have to be modified so that the child can perform at his maximum physical and mental ability. The physical therapist
must be ingenious and creative in work with special equipment. This particular function may be carried on without a medical prescription, but the child's physical condition must be considered when making any modifications of equipment. Desks, standing tables with work surfaces, and wheelchairs are all examples of typical equipment which may require modification.

It must be emphasized that the primary purpose of the school is to give the child an education. The therapist who works with the handicapped child in the school situation meets a daily challenge of varied responsibilities. The therapist's ability to communicate the philosophy and techniques of education and rehabilitation plays an important part in the child's development. The therapist has a direct responsibility to the school, the child, the parent, the physician, the community and the profession.
A TEAM APPROACH

The responsibility of a school involves more than providing academic instruction for the crippled child. The emphasis may change from instruction to treatment, then back to instruction. Generally, an educational program has the following objectives:

1. To help the individual to make a better adjustment to life.
2. To help the child develop to his academic potential.
3. To help the child learn to use leisure time well.
4. To develop individual ability to earn according to his capabilities.
5. To help the child develop into an individual who accepts responsibility and contributes to his social group.

A good program for the crippled child must accomplish all of these. In addition, the program must be adjusted to each child's special problems, his abilities, and his limitations. These objectives are not necessarily all achieved in the classroom for crippled children. Many times the crippled child needs services other than those the teacher has to offer, if the above objectives are to be accomplished.

The team approach is recommended in providing the crippled child with an adequate program. A team approach should include a cooperative, democratic plan of action by various individuals working together for a common purpose; the best possible program for the child.

In the solution of every problem and in the daily experience of every profession there are times and places for the solo, duet, and the chorus. To insist on the solo when the time for a duet has arrived and to continue the duet when all voices should be merged into a chorus of united effort is to jeopardize further advancement.

Successful teamwork is not easy, it cannot be ordered into action, nor can one depend upon the casual daily contacts of school personnel for its success. Successful teamwork requires leadership from the person in charge of the program, and every member of the team must be flexible in planning for individual children.

The objectives of every professional person working with
the child are the same, to help the child gain the skills which permit him to live as nearly a normal and active life as possible.

To gain harmonious interaction requires communication and coordination between team members. Communication is necessary when the members come together to discuss each child's problem, understand the problem, and agree upon a program. Coordination is the summation of the planned program. Every person should carry out his specific function and at the same time strengthen the function of the other professionals.

Individual case conferences should be conducted at least once a year, preferably early in the school year. The responsibility for planning conferences should be vested in the person who is in charge of the program. Realistic objectives and goals should be discussed and established for each child. Evaluation of these objectives and goals should be made periodically in order that necessary changes can be made when indicated.

For evaluation and follow-up, all case data should be recorded for continued planning. An accumulative record of physical and academic progress is necessary for many crippled children. Some crippled children will not be able to integrate into the regular classroom or prepare for vocational training. The accumulative record will help to plan a continuous program within the school and with other agencies.
TRENDS AND ISSUES IN THE ORTHOPEDIC PROGRAM

The total enrollment in the Orthopedic Program in the State of Ohio has remained fairly constant over the years in spite of the increasing population. This can be attributed largely to the great strides made by medical science in reducing the infectious types of crippling conditions which at one time made up a major portion of the program. However, an increase in crippling conditions caused by birth defects and congenital anomalies can be noted over this same period. Modern methods in medicine have greatly decreased the number of deaths at birth, and many more children born with abnormalities appear to be living to an average life span.

As previously mentioned, the types of crippling conditions have changed over the years, and many more severely involved children are being admitted to school programs. In some instances local school districts have made provisions for the less severely handicapped to be included in the regular classroom. Inevitably the Orthopedic Program in the public school is composed of the most severely involved children, often presenting both physical and mental problems. The existing situation may indicate a need for change in our educational planning for these youngsters.

The following observations are not intended as criticisms of the present Orthopedic Program. Rather, they are presented for consideration to insure proper program planning in the future.

1. Children with congenital or genetically related problems, as a group, have a lower mental ability than that of the average population without such handicaps.
2. Children with these particular handicaps appear to be less capable, physically and mentally, of integrating into the regular classroom at the end of the existing elementary orthopedic programs; therefore, there may be a need for the development of programs at the junior high and high school levels.
3. Instructional methodology may need to be changed to meet the individual needs of each child.
4. With the increase of upper motor neuron disabilities, and the progressive nature of some diseases such as
muscular dystrophy, it seems necessary to increase the ancillary services offered to these children. Observation and evaluation indicate the greatest needs in the areas of occupational and speech therapy.

5. Physical therapy programs will need to be adjusted accordingly. Treatment aspects will probably consist of more neuromuscular facilitation, gross pattern movements, reflex patterns, bowel and bladder training and maintenance therapy.

6. Physical therapy and occupational therapy case loads will need to be lightened to provide the necessary time for the more individual and concentrated therapy indicated by the severe handicaps.

7. Physicians who prescribe treatment will need to take an active part in team planning or delegate this function to ancillary medical personnel.

8. There is a need for more individual case conferences, with realistic objectives determined for each child.

9. There is a need for regular parent conferences to explain goals, answer questions, and to gain the parents’ cooperation in carrying out training at home.

10. There appears to be a need to establish classes for slow learning crippled children with an appropriate curriculum.

The responsibility of providing an overall and continuous program rests with the local boards of education maintaining these programs. Continued success will be dependent upon providing a meaningful educational experience for these children.
LEGAL PROVISIONS PERTAINING TO CRIPPLED

The responsibility of providing a free education for a child is vested by law within the local school district in which the child resides. The State of Ohio has recognized the need of crippled children and has made provision accordingly. The following legal provisions pertain to crippled children.

Section 3323.03. Definition of Physically Handicapped.

Any person of sound mind, by reason of defective hearing or vision or by reason of being so crippled as to be physically unable to properly care for himself without assistance, cannot properly be educated in the public schools as other children, shall be considered deaf, blind, or crippled within the meaning of Sections 3323.01*** of the revised code. Persons with partial hearing or partial vision may also be instructed under such sections and under Section 3323.02 of the revised code.

Section 3313.48 Responsibility to Provide Schooling.

The Board of Education of each city, exempted village and local school district shall provide for the free education of the youth of school age within the district under its jurisdiction, at such places as will be most convenient for the attendance of the largest number thereof. Every day school so provided shall be open for instruction with pupils in attendance for not less than one hundred seventy-six days in each school year. Each day for grades seven through twelve consist of not less than five clock hours with pupils in attendance, except in such emergency situations, including lack of classroom space, as shall be approved by the State Board of Education. Each day for grades one through six shall consist of not less than five clock hours with pupils in attendance which may include fifteen minute morning and afternoons recess periods, except in such emergency situations, including lack of classroom space, as shall be approved by the State Board of Education.

Section 3321.01. Compulsory School Age Fixed

A child between six and eighteen years of age is “of compulsory school age” for the purpose of Sections 3321.01 to 3321.13, inclusive, of the revised code, but the Board of Ed-
ucation of any district may by resolution raise the minimum compulsory school age of all children residing in the district to seven, subject to subsequent modification to six, and the compulsory school age of a child shall not commence until the beginning of the term of such schools, or time in the school year fixed by the rules of the board of the district in which he resides.

The parents, guardians, or other persons who have the care of a child of compulsory school age shall instruct him, or cause him to be instructed as provided in such sections, unless he is employed on age and schooling certificate, or shall have been determined to be mentally incapable of profiting substantially by further instruction.

Section 3321.03. Child Must Attend School

Every child of compulsory school age who is not employed under an age and schooling certificate and has not been determined to be incapable of profiting substantially by further instruction shall attend a school which conforms to the minimum standards prescribed by the state.

Section 3323.01. Authority to Set Up Special Instructional and Child Study Services

The State Board of Education may grant permission to any board of education to establish and maintain classes for the instruction of deaf or blind persons over the age of three, and crippled or slow learning persons over the age of five; and to establish and maintain child study, counseling, adjustment, and special instructional services for persons over the age of five whose learning is retarded, interrupted, or impaired by physical or mental handicaps. The State Board of Education may, by written agreement with the board of trustees of any college or university, arrange with the teacher education department of such college or university for the classroom and in-service training of teachers for handicapped children.

Section 3323.02. Standards, Inspection and Supervision

The State Board of Education shall select competent persons to inspect at least once a year all classes and to direct and supervise such other services established under Section 3323.01 of the Revised Code, and to report concerning the instruction in such classes, the conditions under which they
are maintained, the conditions under which any persons enrolled in such classes are boarded, and the extent and nature of all other services related to education affecting physically and mentally handicapped persons.

The State Board of Education shall prescribe standard requirements for day schools for the deaf, blind, crippled, and slow learners, and for other instruction and services for all types of handicapped persons included under Section 3323.01 of the Revised Code, and for which persons any school district is entitled to state reimbursement, or aid. Such requirements shall include the conditions under which such schools are conducted, or services are rendered, the methods of instruction, child study, counseling, adjustment, and supervision; the qualifications of teachers and the personnel in charge of child study and counseling, the conditions and terms under which they are employed, the special equipment and agencies for instruction provided, and the conditions of the rooms and buildings in which the schools are held. For the purpose of encouraging the development of special programs of education for academically gifted children the State Board of Education shall employ competent persons to analyze and publish data, promote research, advise and counsel with boards of education, and encourage, the training of teachers in the special instruction of gifted children. The State Board of Education may provide financial assistance out of any funds appropriated for this purpose to boards of education for developing and conducting experimental programs of education for academically gifted children.

Section 3323.04. Petition to Set Up Class for Crippled Children

Upon petition by the parents or guardians of eight crippled children, in any school district, of the age named in Section 3323.01 of the Revised Code, the board of education of such district shall apply to the State Board of Education for permission to establish a special class for such children, and if such is granted shall establish such class not later than the beginning of the following school year, upon standards prescribed under Section 3323.02 of the Revised Code. If a board fails to perform its duty under this section, Section 3313.85 of the Revised Code shall apply.
Section 3323.09. Child Handicapped by Two Defects

If a child is handicapped by two of the defects mentioned in Section 3323.01 of the Revised Code, the State Board of Education may allow him to be counted as a full-time pupil among those with each kind of defect in determining the state's contribution to the classes for such children, provided the types of work and attention necessary for both types of children are afforded him.

Section 3323.10. Payment of Tuition and Transportation for Handicapped Children

If a child who is a school resident of one school district attends in another district, a class in which some special instruction needed by the child because of his handicap is provided, the board of education of the district in which he is a school resident shall pay his tuition in a sum equal to the tuition in the district in which such class is located for a child of normal needs of the same school grade and the determination of the amount and payment of such tuition shall be in the manner provided for by Sections 3317.05 and 3317.08 of the Revised Code. The board of the district in which such child is a school resident may pay his transportation to the class in the other district; and the board of the district in which the class he attends is located may provide his transportation to the class. Upon direction of The State Board of Education, the board of the district in which such child resides shall pay for his transportation and the tuition.

Section 3323.12. Payment of Board

The State Board of Education may arrange with any board of education which maintains a class for the instruction of blind, deaf, or crippled persons, or affords special instruction for such children who are not school residents of the district, to pay for the board of any such persons under standards and with such restrictions as the State Board of Education prescribes.
APPENDIX B
STATE BOARD OF EDUCATION STANDARDS
FOR UNITS FOR ORTHOPEDICALLY
HANDICAPPED CHILDREN

The implementation of the legal provisions for the educational programs and supportive services for crippled children is a responsibility of the State Board of Education. The following standards, adopted by State Board of Education in April, 1960, are considered minimum for an effective program. Administrators desirous of maintaining programs of high excellence will establish goals beyond these minimums.

4.0 Units for Crippled Children
4.1 General
   4.11 A special education unit or fractional unit for crippled children may be approved only within the standards listed herein.
   4.12 A special education unit or fractional unit for occupational therapy or physical therapy may be approved only within the standards listed herein.
   4.13 A special education unit or fractional unit may be approved for an experimental or research unit designed to provide a new or different approach to educational techniques and/or methodology related to crippled children.
   4.14 A special education unit or fractional unit for crippled children may be approved for instruction in hospitals.
   4.15 All children enrolled in an approved special education unit for crippled children shall meet the standards listed herein.

4.2 Eligibility
   4.21 A child who has a congenital or acquired physical disability.
   4.22 A crippled child of school age with an I. Q. of 70 or above.
   4.23 Determination of eligibility of a child for a special education unit for crippled shall be
based on the current medical report of a qualified physician presently treating the crippling condition and the physical and mental readiness of the child to benefit from instruction.

4.3 Assignment of Children

4.31 The placement of pupils in a special education unit for crippled children and the transfer from the unit shall be the responsibility of the superintendent of schools (district maintaining unit) or a staff member designated by him. This professional staff member shall be some one other than a teacher or therapist.

4.32 The person assigned the responsibility for placement of crippled children shall keep records and the supportive physical and mental data used as a basis for eligibility for placement and for transfer.

4.33 This person shall provide such records and data to the school receiving the child when transfer is made to regular, home instruction, hospital or other school program.

4.34 The readiness for transfer from the special education unit should be determined by agreement of the pupil's physician, teacher, therapists and other school personnel.

4.4 Unit Size

4.41 The minimum number of pupils in a special education unit for crippled children shall be 8.

4.42 Single grade units should not exceed 20.

4.43 Two grade units should not exceed 16.

4.44 Units of more than two grades should not exceed 12.

4.45 The minimum size of an occupational therapy or physical therapy unit shall be determined by the needs of the pupils enrolled in the public school program.

34
4.5 Housing

4.51 Special education units for crippled children shall be located in a regular public school building housing corresponding grades, or in a special public school.

4.52 The building entrance shall be at ground level or equipped with a ramp.

4.53 Class, treatment and cot rooms shall be located on the first floor of the building unless elevators are available.

4.531 These rooms should be in the central part of the building near adequate exits.

4.532 Entrances shall be at floor level, wide enough to admit wheelchairs and fitted with doors that can be easily operated by the children.

4.533 Class and treatment rooms shall be at least as large as regular classrooms in the building and must meet physical standards for all classrooms.

4.534 There shall be within these rooms or easily accessible to them, adequate storage space for special equipment.

4.535 Each physical therapy room shall include curtained or screened sections to provide privacy for individual pupils.

4.536 There shall be an adequate hot water supply for all occupational and physical therapy units.

4.537 Cot rooms shall provide adequate space for rest facilities. They shall be properly ventilated and include window shades to insure light control.

4.54 Lunchroom facilities shall include furniture, tools and equipment suitable to the individual needs of the children.

4.55 Suitable drinking fountains and toilet facilities must be located within easy access for all children.

4.551 Toilet rooms shall be equipped with grab-bars and other facilities necessary
4.552 They shall provide at least one stall designed to accommodate a wheelchair.

4.553 Special ventilation facilities shall be provided when indicated.

4.56 All floors in special education units for crippled children shall be free of excessive wax or oil, providing non-skid surface.

4.57 Adequate play area in size and location shall be provided.

4.6 Program

4.61 The course of study followed in the special education unit for crippled children shall be the same as in regular grades, modified to meet the physical limitations of the children.

4.62 The schedule for each child shall be based on his physical condition, academic level and treatment routine.

4.63 Special education units for occupational and physical therapy shall provide treatments when prescribed in writing by the attending physician and observation of pupils as recommended by him. This physician must be licensed to practice medicine and surgery in the State of Ohio.

4.631 Individual prescriptions signed by the physicians shall be kept on file in these units.

4.7 Equipment and Materials

4.71 All special equipment, furnishings and materials necessary for the instruction, safety and treatment of crippled children shall be provided.

4.8 Teacher Qualifications

4.81 Teachers, occupational therapists, and physical therapists shall meet the requirements for certification set by the State Board of Education for their particular area of specialization.

4.82 Occupational and physical therapists in special education units for crippled children shall be under contract to the board of education maintaining the units.
CERTIFICATION STANDARDS FOR
TEACHERS AND THERAPISTs

Certification of Teachers

Prior to January 1, 1963, no specific certificate was needed to teach crippled children; however, on December 11, 1961 the State Board of Education adopted the following requirements which became effective January 1, 1963 for a provisional special certificate to teach crippled children.

1. A provisional certificate at the level for which the special certificate is requested.
2. Nine (9) months of teaching experience at the level for which the special certificate is requested. (May be waived upon the satisfactory completion of six additional semester hours of observation and student teaching with crippled children.)
3. Eight semester hours of special preparation in the following pattern:
   a) Education of the Physically Handicapped...............4 Sem. Hours
   b) Psychology or Education of Exceptional Children...........2 Sem. Hours
   c) Education of Multi-Handicapped Children...............2 Sem. Hours

Certification of Occupational Therapist

An applicant for the provisional special certificate in occupational therapy shall submit evidence of the following preparation:

1. Completion of an approved curriculum as required by the Council on Medical Education and Hospitals of the American Medical Association in occupational therapy plus a minimum of nine (9) months internship in clinical affiliations.
2. Bachelor's degree.
3. Eight semester hours of special preparation in the following:
   a) Education of the Physically Handicapped..................4 Sem. Hours
b) Psychology or Education of Exceptional Children .................. 2 Sem. Hours

c) Education of Multi-Handicapped Children .................. 2 Sem. Hours

Certification of Physical Therapist

An applicant for the provisional special certificate in physical therapy shall present evidence of the following preparation:

1. Ohio Medical Board License in Physical Therapy.
2. Bachelor's Degree.
3. Eight Semester hours of special preparation in the following:
   a) Education of the Physically Handicapped .................. 4 Sem. Hours
   b) Psychology or Education of Exceptional Children .................. 2 Sem. Hours
   c) Education of Multi-Handicapped Children .................. 2 Sem. Hours
BOARDING HOMES FOR PHYSICALLY HANDICAPPED CHILDREN

Section 3323.12 R.C. sets forth the law pertaining to the payment of board for physically handicapped children.

A crippled child who lives in a school district that does not have an appropriate special class may attend school in another district where such a program is available. When a child attends special class in a school district other than that of his residence, he may be boarded and the cost of such board will be paid by the State.

Neither the school personnel nor parents should assume responsibility for finding boarding homes, placing children in homes or changing children from one home to another. This responsibility is vested in the Ohio Department of Public Welfare which enlists the cooperation of local agencies giving services to children.

Routine procedure for placement of children in boarding homes shall be as follows:

1. The sending school district is responsible for making contact with the receiving school district.
2. The receiving school district will notify the sending school district whether the child will be accepted in the program.
3. The school district that advances payment for the boarding home shall:
   A. Complete Form BH 1 in triplicate for all initial applications.
   B. Complete Form BH 2 in duplicate annually.
4. When the above forms are properly completed the superintendent should submit the forms to the Ohio Department of Education, Division of Special Education as soon as possible.
5. The Division of Special Education will notify the Ohio Department of Welfare that the child has been accepted in an approved program and that boarding care is authorized.
6. When a boarding home is secured the school district will be notified accordingly.
TRANSPORTATION OF PHYSICALLY HANDICAPPED CHILDREN

Section 3323.10 R.C. sets forth the law pertaining to the transportation of physically handicapped children. In July 1962, the State Board of Education adopted standards to carry out this portion of the program in a uniform manner.

Crippled children may be transported to a Public School Special Education Program (Form 14.33) or they may be transported to a Regular Public School Program (Form 14.32).

The following procedure shall be used for obtaining approval for transportation.

1. Form 14.32 or 14.33 is to be filled out in duplicate. The completed forms are to be mailed to the Division of Special Education.
2. Applications will then be appraised in accordance with State Board of Education Standards.
3. One copy of the application will be kept in the Division of Special Education and the other copy will be sent to the sending superintendent or designated representative.
4. Reimbursement claims for transportation will be mailed to the school district in May of each school year and are to be returned to the Division of Special Education by August 1 of each school year.

14.0 Transportation of Physically Handicapped Children to Special Class and to Regular School Programs.

14.1 Contract or Board Owned Vehicles:
   14.11 Reimbursement will be paid on actual costs up to $2 per day per child in average daily memberships.
   14.12 Actual costs will be reimbursed when approved costs are less than the approved rate.
   14.13 All costs in excess of this rate will be shared on an equal basis.

14.2 Other Reimbursable Costs:
   14.21 Public transportation, bus fares, actual costs.

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14.22 Guide service not to exceed $.75 per day per child.

14.3 Approval of Transportation for Handicapped Children:

14.31 Transportation costs and data will be submitted at the close of each school year on approved forms.

14.32 Individual applications for approvals of transportation to regular school shall be submitted by each school district when such transportation is to be reimbursed at the close of each school year.

14.33 Individual applications for approval of transportation to special class programs shall be submitted by the sending school district if the receiving school district does not furnish such transportation.

14.4 The approved rate of reimbursement shall be reviewed each even numbered year and a new rate may be adopted when the evidence indicates the need for such change.