SB
673

Telephone Testimony on SB 673 and SB 674
Pevied From Jane Brodie - Anchorage - April 19, 1982 - 1:15 p.m.

To Chairman Parr and Senators of the HESS Committee.

First I want to thank you for schedueling this hearing on vision and hearing screening as put forth in SB 673 and 674. In a previous Letter to you I did detail my concerns and reasons for supporting the development and implimentation of:

1. Comprehensive vision and hearing programs in all School districts and

2. Facilities in Dept. of H.S.S to assist districts in training personnel to preform screening and in maintaining comprehensive programs of high standards

I am sure that you have reviewed this information . I strongly ugre you to consider this and other estimony in support of screening and that you pass SB 673 and 674. Thank you.

THE LEGISLATURE OF THE STATE OF ALASKA
TWELFTH LEGISLATURE

FISCAL NOTE

I. REQUEST
Bill/Resolution No. SB 673 (HESS)am
Title An Act relating to vision and hearing screening in schools
Requested by Senate HESS Date 4/19/82

II. FISCAL DETAIL
Agency Affected Department of Health and Social Services
Program Category Affected Public Health
BRU, Program, Or Subprogram(s) Affected Child & Family Health
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
100 PERSONAL SERVICES		43.3	47.6	52.3		
200 TRAVEL		20.0	22.0	15.0		
300 CONTRACTUAL		5.0	4.0	4.0		
400 COMMODITIES		4.0	4.0	4.0		
500 EQUIPMENT		4.2	3.0	2.0		
600 LAND & STRUCTURES		0	0	0		
700 GRANTS,CLAIMS,ETC.						
TOTAL		76.5	80.6	77.3		

FUNDING (Thousands of Dollars)

GENERAL FUND		76.5	80.6	77.3		
FEDERAL FUNDS						
OTHER (Specify Source)						

POSITIONS

FULL TIME		1	1	1		
PART TIME						
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

This fiscal note is based on the DHSS Fiscal note Dated 4/16/82 by David Spence. This Fiscal note reflects the elimination of section 1(c) of the bill as amended by the Senate HESS committee. Subsection (c) eliminates the grants to school districts.

IV. DATE 4/19/82 PREPARED BY Charles Parr, HESS Chairman
AGENCY Senate
PHONE 465-4907

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)
3-001 (Rev. 12/81)

POSITION PAPER

Senate Bill No. 673

"An Act relating to vision and hearing examinations in public schools; and providing for an effective date."

OVERVIEW

Periodic examination of school children to detect hearing impairment and vision abnormalities has long been considered a valuable and cost effective preventive health measure. Simple tests can effectively and efficiently screen large numbers of children at minimal cost in order to identify those children who are in need of further corrective medical or remedial intervention. Early identification of hearing and vision abnormalities is critical in order to provide an opportunity for each child to maximize his learning experience.

The initiation of periodic vision and hearing examination of school children has been uniformly supported by the Departments of Education and Health and Social Services, local school districts, public health nurses, Native Corporations, the Governor's Council on the Gifted and Handicapped, and the private medical community. In spite of this widespread support, no uniform program currently exists in the State of Alaska. Recent reports by the Governor's Council on the Gifted and Handicapped and by a Blue Ribbon Committee on Otitis Media and Hearing Impairment strongly recommend legislation to establish a comprehensive program to provide for periodic vision and hearing examination of school children.

With the dramatic rise in health costs in Alaska and in the United States, efforts are increasingly being directed to preventive services and to the use where possible, of non-medical personnel. Screening examinations to identify children with hearing impairment or vision abnormalities can be performed effectively, rapidly, and inexpensively by appropriately trained lay personnel. The proposed legislation will allow vision and hearing tests to be performed by lay people who are appropriately trained to conduct the examinations. Periodic screening of all children in Alaska schools will allow for early intervention so that children with readily treatable impairments can be ameliorated and children with chronic or permanent impairments can be offered medical habilitation and educational program support.

The Department of Health and Social Services will have the responsibility to provide training and certification for persons doing vision and hearing screening and to assist with the needed referral and follow-up services.

During its April 22, 1981 regular meeting, the State Board of Education voted unanimously to support the concept of SB 673 and to recommend that the Department of Health and Social Services be responsible for paragraph (c), line 21-23. This bill contains all the features that our Departments feel are essential for development of a quality vision and hearing screening program.

POSITION

The Department of Health and Social Services and the Department of Education support passage of this bill with the recommended amendment to 14.30.075(c).

Approved by: _____
Commissioner of Health and Social Services

Approved by: _____
Commissioner of Education

Date: 4-19-82 4-19-82

THE LEGISLATURE OF THE STATE OF ALASKA
TWELFTH LEGISLATURE

FISCAL NOTE

I. REQUEST
Bill/Resolution No. Senate Bill No. 673
Title "An Act relating to vision and hearing screening in public schools."
Requested by Commissioner's Office Senate HESS Date 4/16/82

II. FISCAL DETAIL
Agency Affected Department of Health and Social Services
Program Category Affected Health/Public Health
BRU, Program, Or Subprogram(s) Affected Child & Family Health
(Note: If more than one budget component is affected, separate line-item amounts and funding for each component in the analysis section.)

EXPENDITURES (Thousands of Dollars)

	FY 82	FY 83	FY 84	FY 85	FY 86	FY 87
100 PERSONAL SERVICES	0	43.3	47.6	52.3	57.5	63.3
200 TRAVEL	0	20.0	22.0	15.0	15.0	15.0
300 CONTRACTUAL	0	5.0	4.0	4.0	4.0	4.0
400 COMMODITIES	0	4.0	4.0	4.0	4.0	4.0
500 EQUIPMENT	0	4.2	3.0	2.0	1.5	1.5
600 LAND & STRUCTURES	0	0	0	0	0	0
700 GRANTS,CLAIMS,ETC.	0	199.8	220.0	240.0	260.0	280.0
TOTAL	0	276.3	300.6	317.3	342.0	367.8

FUNDING (Thousands of Dollars)

GENERAL FUND	0	276.3	300.6	317.3	342.0	367.8
FEDERAL FUNDS	0	0	0	0	0	0
OTHER (Specify Source)						

POSITIONS

FULL TIME	0	1	1	1	1	1
PART TIME	0	0	0	0	0	0
TEMPORARY						

III. ANALYSIS (See Fiscal Note Preparation Instruction, Section III)

This fiscal note reflects the associated cost of a Public Health Nurse III, Range 18, Vision Health Consultant who will train nurses and para-professionals in vision screening skills and in management of the referral and follow-up of children found to be abnormal. This position will be located in Anchorage to minimize the extensive statewide travel requirements. Clerical support can be provided by continued funding of the Communicative Disorders Program, since there are features of hearing and vision screening activities that overlap. See attachment for a cost breakdown of this position.

The grant funds would be directed to school districts that request these funds for their costs in this screening activity.

IV. DATE 4/16/82 PREPARED BY David Spence, M.D.
AGENCY Department of Health and Social Services
PHONE 465-3100

Original: Legislative Finance
cc: Budget and Management
Prime Sponsor (First Legislator Named)
33-001 (Rev. 12/81)

100	Personal Services		
	Salary and benefits, Range 18, Anchorage		43,250
200	Travel		
	In-state: 20 week long trips to regional centers throughout Alaska-		
	Typical trip - Anchorage/Ft. Yukon/Anchorage		
	Airfare $286		
	Per diem x 5 450		
	$736		
	Average trip= $800 x 20 trips =	16,000	
	Out-of-state		
	Vision consultant travel to National Assoc. of Blind annual meeting on screening in New York	1,450	
	Hearing consultant to national meeting of hearing screening consultants - ex. Chicago	1,250	
	Guest speaker at an Alaska education meeting to emphasize importance of screening to educators	1,300	
	TOTAL		20,000
300	Contractual		
	Office space 150 sq.ft. x $100/sq.ft.	1,800	
	telephones and teleconferences	1,000	
	printing of materials, manuals	2,200	
	TOTAL		5,000
400	Commodities		
	Purchase of training materials, films, screening supplies, office supplies		4,000
500	Equipment		
	Office furniture-desk, chairs, files	1,500	
	Puretone audiometer	909	
	Slide and film projector and other audio-visual equipment - vision testing equipment	1,800	
	TOTAL		4,209

NEA · ALASKA

AFFILIATED WITH THE NATIONAL EDUCATION ASSOCIATION

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Fairbanks Office

April 15, 1982

TO: Senator Charlie Parr, Chairman
Members of the Senate HESS Committee

RE: Senate Bill 675

"An Act relating to vision and hearing screenings in public schools, and providing for an effective date."

NEA-Alaska supports SB 675 and encourages the Committee to urge its passage.

Early diagnosis of physical handicaps which impact the learning process greatly enhance every child's learning potential.

Since vision and hearing impairment may not always be obvious in a child's home environment, it is essential that public schools provide the diagnostic process as early as possible.

Respectfully Submitted:

Robert Manners
Executive Secretary

RM:jw

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT

Nancy 4-19-82 2:45

DAVE Thomas – P.O. Box 808 - Douglas 99824
supports

SB 673 + 674

Director of Special Education
J.D. School Dist.

Blind - vision impaired council -

Supports vision + hearing screening

Can't testify today.

Meeting on 649

HEARING LOSS IN ALASKA

By

David R. Canterbury, Carl Dixon, Keith Gish, B. D. Kimball,
M. A. Lopez, Thomas McCarty, Pearl Bryant

For the past 7 years clinical services for the hearing impaired in all areas of Alaska have been provided by the 4 Regional Offices of the Alaska Communicative Disorders Program, Department of Health & Social Services, and the Audiology Unit of the Federal Alaska Native Medical Center, Indian Health Service. As has been noted in previous publications Canterbury (1978); Kimball (1977); the amount of hearing impairment in Alaska appears to be considerably greater than found in most other parts of the United States. This higher prevalence of hearing problems is largely due to acute and chronic otitis media. Noise induced hearing loss also contributes to the problem and appears to be occurring at an earlier age than was once suspected. The prevalence of chronic tympanic membrane perforations has been steadily reduced over the past decade due to the development of a village based health care system which receives backup support from centrally and regionally based ear specialists, public health nurses, physicians assistants, and audiologists. Additionally, an active surgical program has performed nearly 4,000 tympanoplasties during the past decade; Tower (1978). The existence of a productive medical component has no doubt reduced but certainly has not eliminated existence of a large number of hearing impairments as will be documented in this paper. Surgeries often leave residual hearing impairment; the surgical option is sometimes refused by the patient or is not recommended by the ear specialist, and other factors such as noise exposure also contribute to the ranks of the hearing impaired.

Efforts have been made to describe and quantify the extent of hearing impairment from time to time; however, basic problems previously existed regarding the

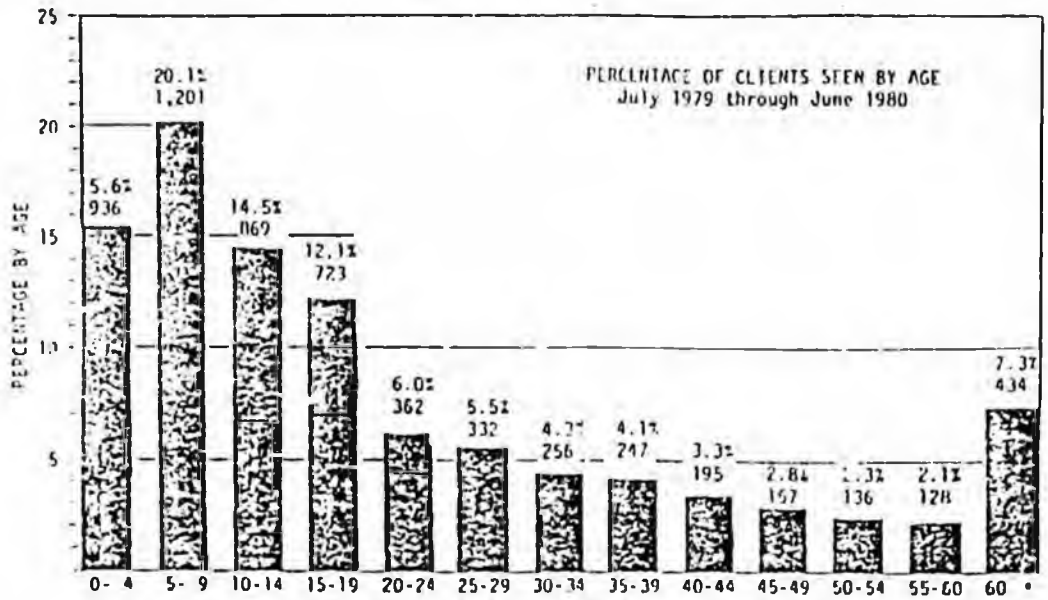
commonality of terms used in describing the hearing loss in the control of variables affecting the reliability and validity of such reports. Because of these problems, in 1975 the audiologists employed by the State and the Federal Indian Health Service program in Alaska agreed on certain training, testing, reporting, and referral standards including the use of standard audiometric forms. Similarly agreement was made to code these forms in a uniform manner regarding amount of hearing loss, type of hearing loss, impedance findings, referral recommendations, hearing aid use, and patient identifying information. This information is processed by an audiology data system which provides information on a scheduled basis for client management, planning, reporting, and statistical analysis. Each year for the past 3 years from 5,900 to 10,000 entries have been made into this system. To date 32,479 audiograms have been entered on a total of 21,465 clients. The following information is an analysis of the test findings for one year, the period ending June 30, 1980 on 5,986 clients. Although many clients were seen on several occasions, only the last entry per client was used in the compilation of these data in order to avoid duplications of reporting. These are statewide data and great variability exists from region to region and, in fact, even from village to village. All audiologic testing was done by clinically certified audiologists or by nurses or technicians directly trained and supervised by certified audiologists. Equipment used was electroacoustically calibrated annually to ANSI 1969 Standards and daily biological calibration checks were done each day the test equipment was in use. Each audiogram was clinically coded by the audiologist who did the testing or by the supervising audiologist according to the detailed coding criteria which is consistently used statewide. Copies of all the tests were then sent to the Central Office of the Communicative Disorders Program for inclusion in the data system.

Analysis of this information should be done with the clear realization these are <u>not</u> prevalence data but an examination of the various parameters of test

findings obtained from clients seen in our clinics during the year. Most of the school age subjects were referred from school screening programs conducted by public health nurses, school nurses, or other school screening personnel. (Screening is done at 20dB ANSI for the frequencies of 500, 1000, 2000 and 4000Hz). The failure rate for screening varied from 10.3% to 36.6% depending upon region with the more remote areas having the highest failure rate. Other referrals of children were from medical care providers or were made because of known hearing impairment. The adults were not screened routinely but were seen on self referral or on medical referral. As a consequence of the case selection process, it should be evident that this is not a random sampling of the Alaska population but is primarily made up of individuals who have been seen at our clinics with complaints of hearing problems. The percentages of problems in certain categories is not as significant as is the relationship between variables such as age, race, amount of hearing loss, type of hearing loss and impedance findings. Comparisons with other similar reports such as the Colorado study; Weber (1967), might also provide insight concerning problems unique to Alaska.

DESCRIPTION OF POPULATION

A total of 5,986 clients were seen during the reporting period ranging in age from less than 1 year to 99 years of age. The largest percentages (58.6%) were seen in

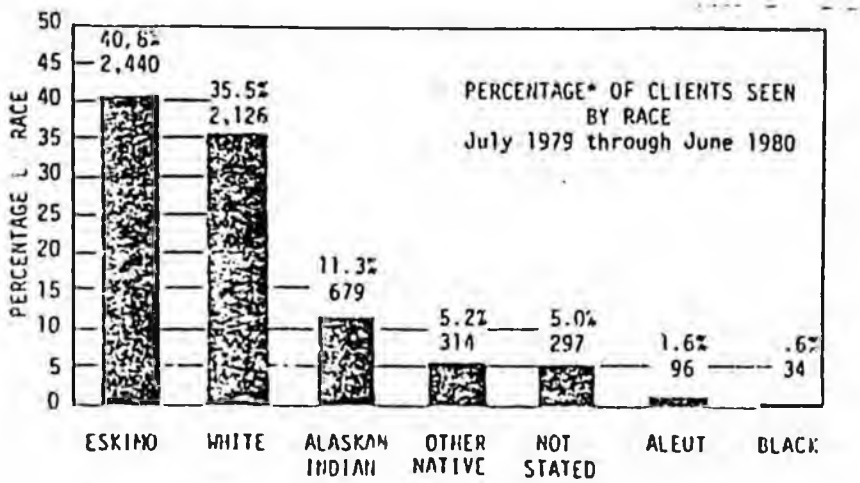


* The number of Clients represented here is 5,986. The figure below the percentage is the number of clients seen in that category.

FIGURE 1

the age bracket between 2 and 19 years inclusively. Three and seven tenths percent of the children seen were under one year of age. The age breakdown is detailed in Figure 1.

Fifty-six percent of the clients seen were male and 44% were female. Race was established from the health records or by questioning the clients. Fifty-eight and nine tenths percent were Alaskan Native (Eskimo, Indian, other Native or Aleut, see Figure 2).



* The number of Clients seen was 5,986. The figure below the percentage is the number of clients seen in that category.

FIGURE 2

Clients seen during this year were from 247 different communities. Eleven and three tenths percent of the 5,986 clients were from communities with population less than 250 people, 25.4% were from villages with population of from 250 - 1000 people, 26.5% were from communities ranging in size from 1000 - 4000 and 36.8% were from towns and cities larger than 4000 people. Many rural villages are entirely Alaskan Native but the ratio of native to non-native varies widely from region to region in the state. Overall, the rural communities have a much higher percentage of natives than the urban areas and the standard of living including health care access is not comparable to the urban centers.

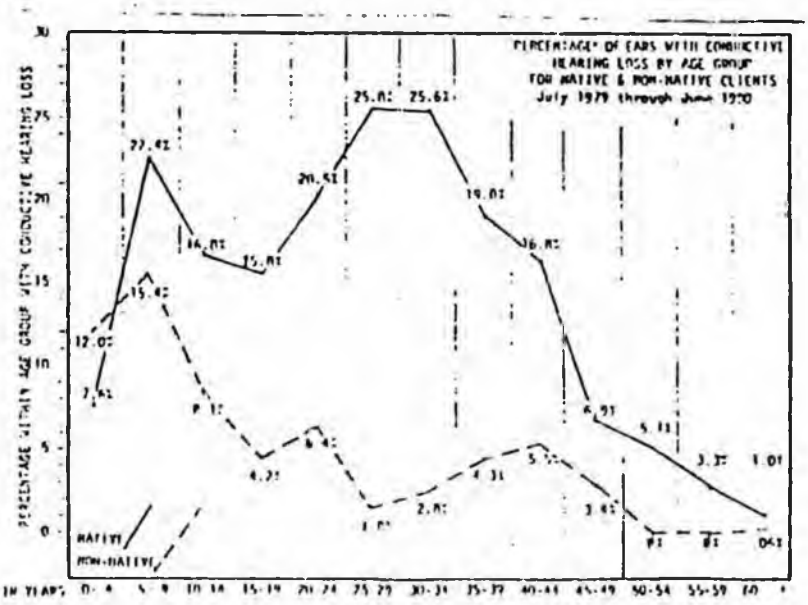
Significant differences were not observed between the right and left ears. Percentages on the charts below indicate the occurrence of each condition within each age group. The percentages are for the total number of ears tested within each age group.

TYPE OF HEARING LOSS

Each audiogram done during the year was coded by type of impairment for each ear. The categories were conductive, mixed, sensorineural, indeterminate and normal. Establishment of both air and bone conduction thresholds was a requirement for determining type. Inability to accomplish this task on the under 2 years of age population results in underestimation of percentage figures of type of impairment for the 0 through 4 age group. Below is a discussion of the findings in the 3 major hearing impairment type categories.

Conductive loss (A 15dB air bone gap or more at 500, 1000, 2000 or 4000Hz). Analysis of test findings confirms our clinical impression that conductive hearing loss is by far the most common finding in the 5 through 9 age group for both native and non-native groups. Twenty-two and four tenths percent of the natives tested and 15.4% of the non-natives tested were so classified, see Figure 3. The testing limitations for young children mentioned above cause underestimation of type of impairment in the 0 through 4 age group. Forty-two percent were in the indeterminate category. The impedance findings for the 0 through 2 age range are probably a better indication of the extent of pathology in the early years. Those figures are cited later in this paper. The difference in percentage of occurrence between natives and non-natives with conductive loss is established by 5 years of age and becomes more and more prominent until age 15 when the margin between the two groups again narrows.

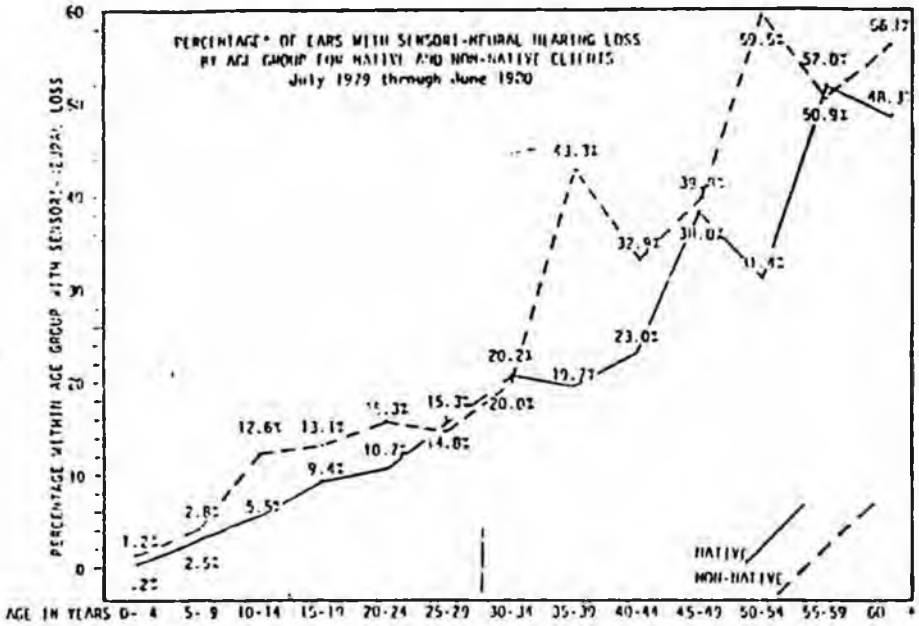
This inordinate number of Alaskan Natives with conductive loss at all ages is no doubt due in large degree to the lingering effects of middle ear pathology during their earlier years of life; Kaplan (1973). This is also reflective of the continuing rehabilitation efforts being directed at this group since known cases of chronic otitis media are likely to be seen on a recurring basis.



* Figures shown represent percentages of ears tested within that age group. Total ears tested per age group are shown below the graph.

FIGURE 3

Sensorineural loss (Bone conduction loss of more than 25dB at 500, 1000, 2000 or 4000Hz). The existence of sensorineural loss of clients seen for both native and non-native populations increased progressively with age from .02% of the 0 thru 4 group to more than 50% of those over 55 years of age. (See Figure 4.) Non-natives had a slightly higher number of purely sensorineural problems. Many Alaskans are exposed to inordinate amounts of high intensity noise from light aircraft, rifle fire, chain saws, snowmobiles, etc. In a separate survey done over a 4 year period; Kimball (1977), it was found that from 9 to 17% of Alaskan Natives entering high school had some degree of sensorineural impairment.

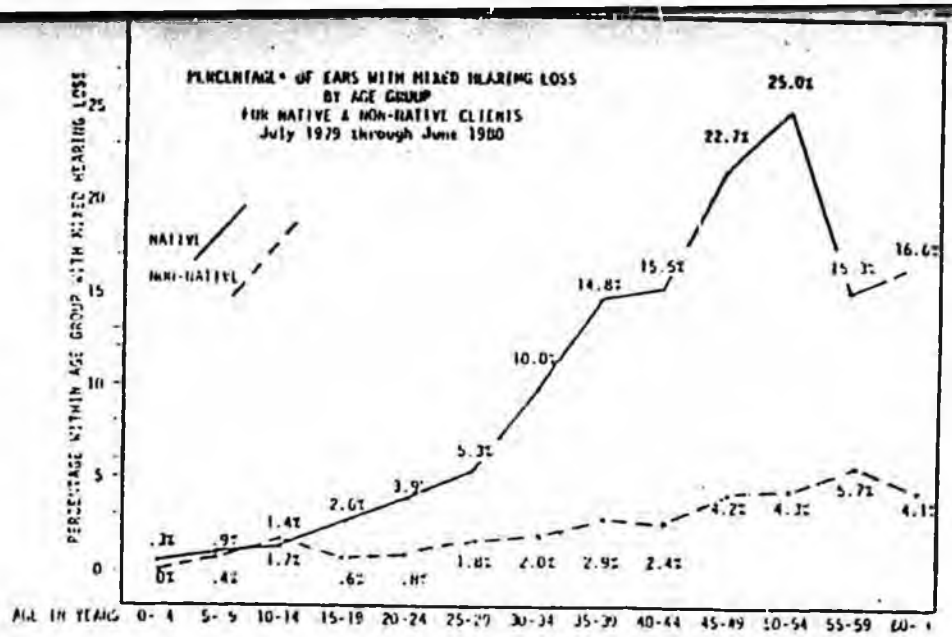


NUMBER OF EARS TESTED PER AGE GROUP:														TOTALS
NATIVE	854	1,224	1,204	1,000	488	300	262	204	226	216	156	150	524	7,058
NON-NATIVE	1018	1,170	532	358	236	284	250	210	164	118	116	106	344	4,914

* Figures shown represent percentages of ears tested within that age group. Total ears tested per age group are shown below the graph.

FIGURE 4

Mixed loss (Presence of both the conductive and sensorineural criteria as described above). The percentage of mixed impairments seen for both racial groups was quite low until age 20. Above age 20 the occurrence of mixed loss increased steadily for the natives to 25% of the clients served at age 50 - 54. The non-natives did not show a similar increase with age. (see Figure 5). As was shown in the above reference to pure conductive and sensorineural loss, the non-natives have a similar or higher occurrence of sensory loss, but the probability of the necessary conductive component being present in adults in order for the results to be labled "mixed" was greatly diminished. Also note that by combining the numbers of mixed and sensorineural losses it becomes evident that the percentages of Alaskan Natives with some degree of sensory deficit (sensorineural or mixed) is more than that of the non-native population seen.



NUMBER OF EARS TESTED PER AGE GROUP:

														TOTALS:
NATIVE	854	1,224	1,206	1,008	438	310	262	284	226	216	156	150	524	7,058
NON-NATIVE	1,010	1,178	532	358	236	284	250	210	164	118	116	108	344	4,914

* Figures shown represent percentages of ears tested within that age group. Total ears tested per age group are shown below the graph.

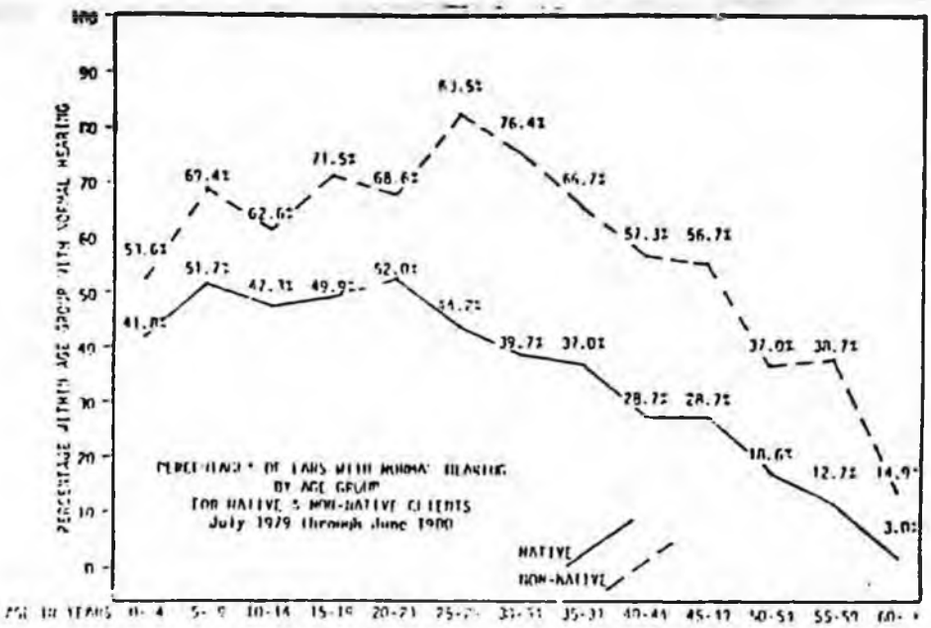
FIGURE 5

AMOUNT OF HEARING LOSS

The amount of hearing loss for each client was classified into one of six categories according to severity based upon the pure tone average (average of. 500, 1000 and 2000Hz). The classifications are listed below.

Normal	PTA 15dB or less
Borderline	PTA 16dB to 25dB inclusively
Mild	PTA 26dB to 40dB inclusively
Moderate	PTA 41dB to 60dB inclusively
Severe	PTA 61dB to 80dB inclusively
Profound	PTA 81dB or more

Figure 6, 7, 8 and 9 shows the comparison of native verses non-native by age and indicate marked differences in the acuity throughout the span of ages tested. The differences between racial groups narrows with age for normal and borderline categories. The difference is slight for more severe losses until age 20. Beyond that age the margin between the groups widens substantially with the frequency of loss in natives being in excess of non-natives.

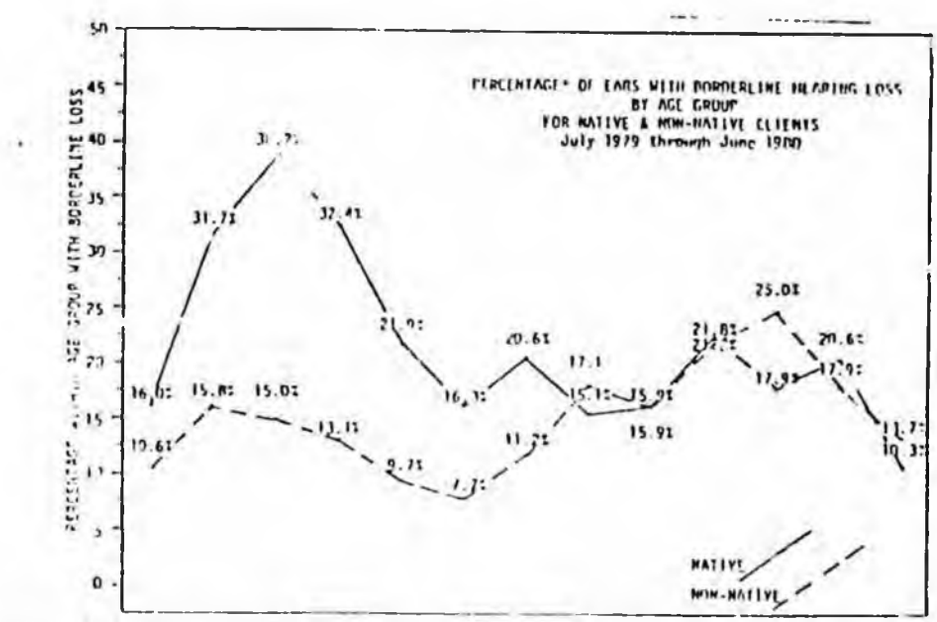


AGE IN YEARS 0-4 5-9 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60+

NUMBER OF EARS TESTED PER AGE GROUP:														TOTALS
NATIVE	854	1,224	1,205	1,008	478	310	262	214	226	216	156	150	524	7,058
NON-NATIVE	1,010	1,170	532	359	216	284	250	210	164	110	116	106	364	4,914

* Figures shown represent percentages of ears tested within that age group. Total ears tested per age group are shown below the graph.

FIGURE 6



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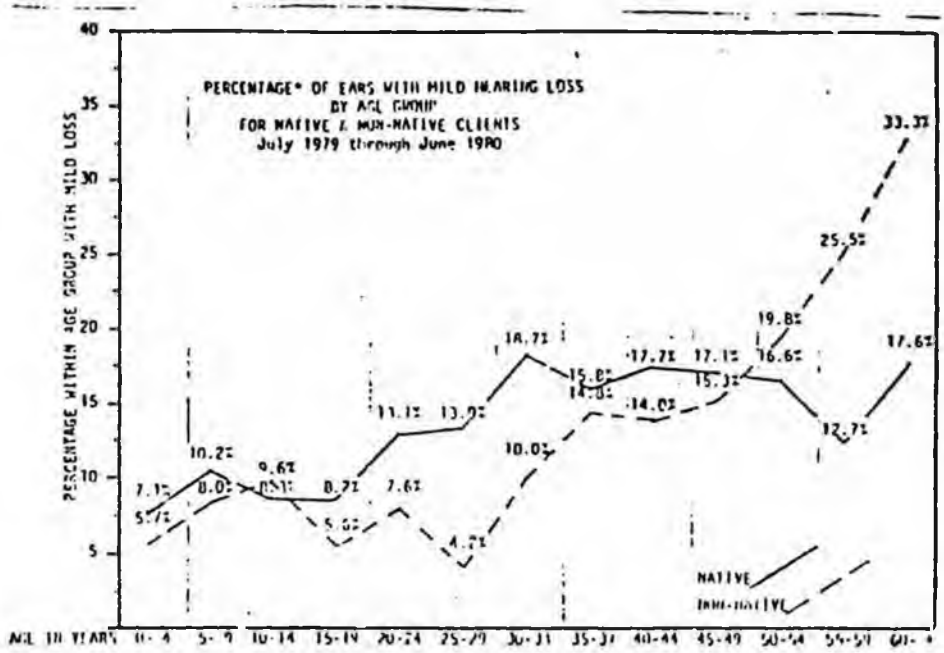
* Figures shown represent percentages of ears tested within that age group. Total ears tested per age group are shown below the graph.

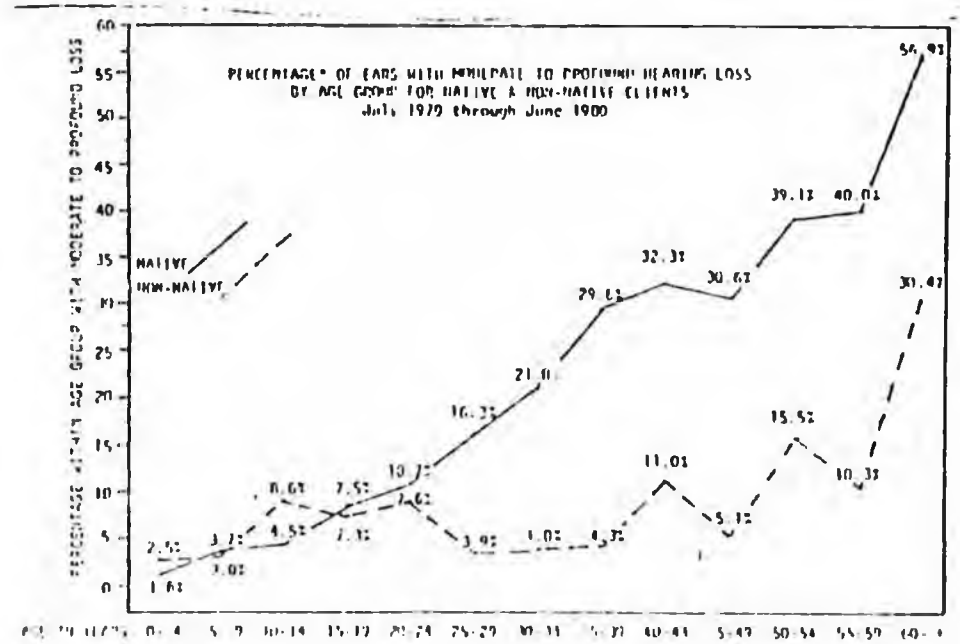
FIGURE 7



NUMBER OF EARS TESTED PER AGE GROUP:														TOTALS:
NATIVE	854	1,224	1,206	1,084	488	300	262	204	226	216	156	150	524	7,958
NON-NATIVE	1,010	1,170	532	358	236	204	250	210	164	110	116	106	344	4,914

* Figures shown represent percentages of ears tested within that age group. Total ears tested per age group are shown below the graph.

FIGURE 8



NUMBER OF EARS TESTED PER AGE GROUP:														TOTALS
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NON-NATIVE	1,010	1,170	532	358	236	204	250	210	164	110	116	106	344	4,914

* Figures shown represent percentages of ears tested within that age group. Total ears tested per age group are shown below the graph.

FIGURE 9

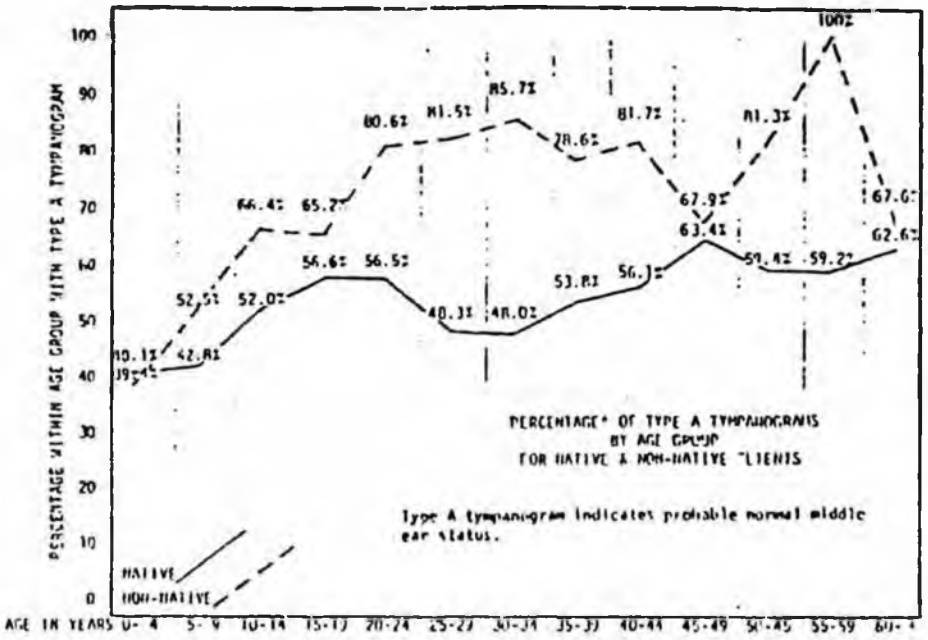
BILATERAL HEARING STATUS

The figures mentioned previously are for the total number of ears tested. It was determined that 61.2% of those with conductive losses had bilateral conductive losses. The remaining 38.8% had various combinations of conductive loss and of other types of loss. Eighty one and five tenths percent of the sensorineural losses were bilateral in nature while 53.5% of the mixed losses occurred in both ears

When level of hearing acuity was evaluated in terms of bilateral symmetry it was found that 82% of the clients with normal acuity in one ear also had normal acuity in the other. Sixty-one and seven tenths percent of the borderline (PTA .6dB to 25dB), 43.5% of mild (PTA 26dB to 40dB), 46.9% of the moderate (PTA 41dB to 60dB), 32% of the severe (PTA 61dB to 80dB) and 34.9% of the profound (PTA 81dB +) were bilateral losses of the same degree.

IMPEDANCE FINDINGS

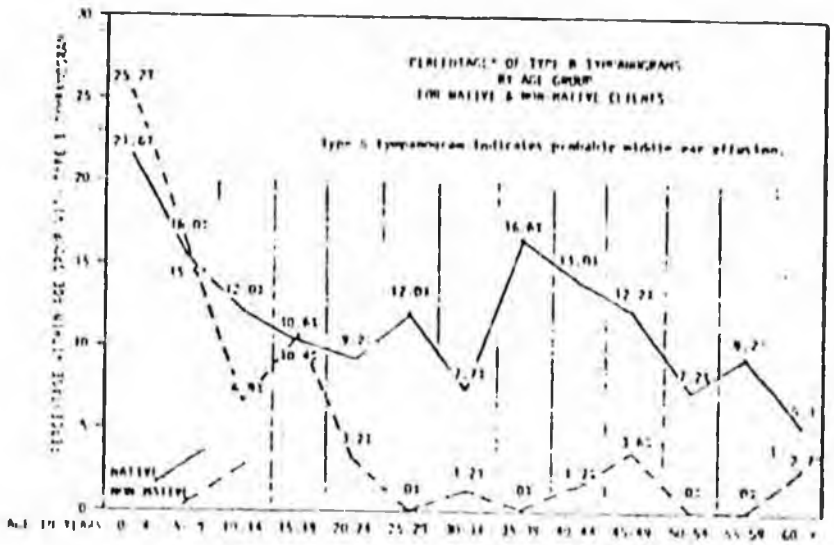
Of the 5,986 clients seen 3,264 received impedance testing including 1,912 natives and 1,351 non-natives. Findings indicate that abnormal middle ear status was common in both young native and young non-native clients. Problems greatly subside for the non-natives, however in the middle and upper age brackets, while the Alaskan Natives continue to demonstrate ongoing middle ear difficulties when seen for audiological evaluations and are far more likely to show at all ages test findings of large middle ear volume characteristic of tympanic membrane perforations or patent vent tube. Because of difficulty in medical followup in rural areas, vent tubes are not used as frequently with the natives as with non-natives. Results were classified according to criteria developed by Jerger; Jerger (1970), and are summarized below (See Figures 10, 11 and 12.)



NUMBER OF EARS TESTED AT EACH AGE GROUP:														TOTALS:
NATIVE	700	750	524	502	260	202	156	169	114	123	69	76	171	3,821
NON-NATIVE	819	696	289	161	93	97	84	56	60	28	32	14	74	2,698

* Figures shown represent percentages of ears tested within that age group. Total ears tested per age group are shown below the graph.

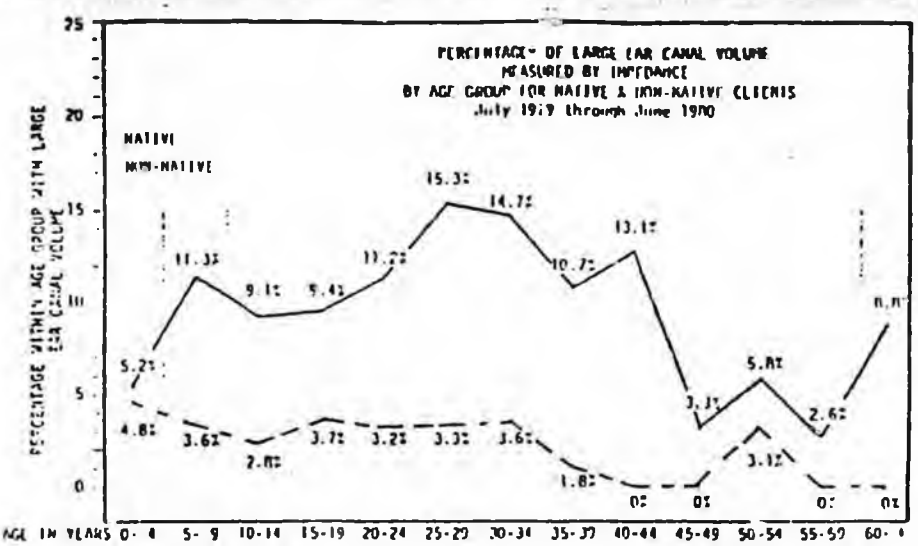
FIGURE 10



NUMBER OF EARS TESTED AT EACH AGE														TOTALS:
NATIVE	700	750	524	502	260	202	156	169	114	123	69	76	171	3,821
NON-NATIVE	819	696	289	161	93	97	84	56	60	28	32	14	74	2,698

* Figures shown represent percentages of ears tested within that age group. Total ears tested per age group are shown below the graph.

FIGURE 11



* Figures shown represent percentages of ears tested within that age group. Total ears tested per age group are shown below the graph.

FIGURE 12

DISCUSSION

The data presented in this study clearly indicates that Alaskan Natives seen in our clinics during the past year have:

1. A higher failure rate on hearing screening tests.
2. A much higher occurrence of conductive loss and abnormal impedance findings at an early age. These conditions were also seen far more often in older clients than is true for non-natives.
3. A higher occurrence of sensory impairment (sensorineural and mixed).
4. A dramatically higher occurrence of mixed loss.
5. More hearing loss of every degree and substantially more individuals in the moderate to severe hearing loss categories beyond age 20.

One of the primary variables used in the study was the race of the clients served. It would however be a serious error to assume that the reason for high numbers of hearing impaired individuals who are the Alaskan Natives is solely because of the race of the clients. The remote environment of many Alaskan Natives results in numerous differences in life style and health care from the urban

dwelling, non-native Alaskans. Other variables which should be taken into consideration are differences in housing, nutrition, sanitation, climate and health care access.

The past 7 years have been a time during which the quality and quantity of audiologic services available in Alaska have increased rapidly. The diagnostic programs for the hearing impaired are now largely in place. The next area of concern should clearly be the further development of comprehensive aural rehabilitation programs which addresses the needs of all ages. This effort should be closely linked to the existing clinical programs but should draw upon the resources of both the educational and health system in the state. The geography and cultural diversity of Alaska will indeed make this a challenge. Our efforts in the future will be toward this goal.

Acknowledgements

This research was partially supported by Crippled Childrens RB Special Projects Grant #10-H-820003-11-0. Cathy Wheeler and June Hill assisted greatly in the compilation of this information and the preparation of this manuscript.

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ALASKA BLIND/VISUALLY IMPAIRED PROGRAM

BRISTOL BAY REGIONAL RESOURCE CENTER
429 "D" Street, Suite 306
Anchorage, Alaska 99501
907-274-4534

JANE BRODIE
PROGRAM COORDINATOR

March 5, 1981

Senator Charles Parr
Pouch V
State Capitol
Juneau, Alaska 99811

Dear Senator Parr:

Dot Truran of the Governor's Council on Handic. pped and Gifted requested that I provide you with some information on vision screening. This relates to the proposed vision and hearing screening legislation that Dot and John Nuttell, Chairperson of the Legislative Committee, spoke with you about approximately two weeks ago.

In order to provide current statistics regarding the value of vision screening, contacts out-of-state were made. Ms. Elizabeth Field, Vision Screening Consultant for Arizona Department of Health and Social Services reported that last year 7-10% of their school age youngsters failed the vision screening and thus required referral for a complete visual examination by an eye specialist. Of these, 75% were actually followed up on and saw an eye physician. Ms. Field indicated the 75% rate was higher than average and felt this was due to Arizona's practice of having the entire process (initial screening through referral)being handled by one person within the local districts as opposed to a few technicians hired to mass screen a state wit' someone else handling the follow-up. She also reported that the National Society for the Prevention of Blindness reports on a 6% failure rate for pre-school children. This too is considered significant.

The statistician for the National Society for the Prevention of Blindness was unable to be contacted by telephone and a written request for information has been sent.

Mr. Jim Nelson, Chief of Child Health for the State of Illinois was also contacted. He advised they had just completed the FY80 Annual Report of Hearing and Vision Screening. This report is a complete summary of all their screening statistics. This is being sent to Alaska via special delivery. When more information is received, I shall forward it to your office.

As a teacher of visually impaired, I see the importance of and great need for comprehensive vision screening for Alaskan children. I do hope you will consider sponsoring this important legislation. If you need additional information, please do contact me.

Sincerely,

Jane Brodie

Mrs. Jane Brodie
Program Coordinator

jr

cc: Senator Don Bennett
Governor's Council on Handicapped and Gifted

MEMORANDUM

Substantiation of need

RE: Proposed Hearing Screening Legislation

The following information is provided as guidance material to be used when considering the proposed hearing screening legislation (SB). This legislation will provide establishment of a uniform hearing screening program statewide for school children to be conducted by trained lay personnel. Training will be provided by the Communicative Disorders Program (H & SS) staff according to standards established by the Vision and Hearing subcommittee of the Governor's Council for the Handicapped and Gifted. Efforts to initiate such screening to date have resulted in sporadic compliance due to lack of standards, poor funding and poor definition of who has designated responsibility for this task. This legislation addresses each of these issues. Through such a screening program approximately 41,300 children would be screened annually. A conservative estimate of a 10% failure rate statewide would mean that 4,130 students at high risk would be identified each year. Of the 4,130 students failing screening approximately half would be referred for medical attention, one fourth would be found to need other non-medical services (such as counseling concerning noise exposure, hearing aid management, preferential seating in school etc.) One fourth would be found to have normal hearing and would not need further services.

Hearing loss continues to be one of the major health problems in Alaska. Statistics from other states indicate that a hearing screening failure rate of 5% is usually anticipated. In Alaska when the same screening procedures are employed the failure rate ranges between 10.3% and 36.6%. The highest failure rate is found in the remote areas (especially in the rural villages of Northern and Western Alaska).

Cases of hearing loss identified by these screening procedures vary from mild transitory ear infections to severe sensory damage. Otitis media (middle ear infection) is by far the most common condition identified prior to grade three. Cases of otitis media will be referred to a physician, public health nurse or health aide who will administer medications, monitor the case over a period of time, and refer for more specialized attention when indicated.

RE: Proposed Hearing Screening Legislation

Hearing loss due to noise exposure is also found commonly in older students through screening. High school students at Mt. Edgecumbe have had their hearing routinely checked for several years. This type of hearing loss has been discovered in 9 to 17% of the student population each year. It is believed that this high prevalence of noise induced hearing loss is caused by excessive exposure to high intensity noise from rifle fire, light aircraft, snow mobiles and motor boats. This condition is permanent and may be progressive with continued exposure. Early identification is important so that ear protection, counseling and hearing health education material may be provided.

The implementation of a uniform hearing screening effort in Alaska is a necessary part of developing a preventative program. Cases identified can be; 1) referred for prompt medical attention, 2) counseled concerning prevention of further hearing loss, 3) provided with remedial services through existing agencies, 4) monitored on an ongoing basis. Without prompt and systematic identification many of these cases will no doubt go undetected until corrective procedures are less effective.

Should you wish further information concerning hearing loss in Alaska please contact me.

jrh

Council Overview RECOMMENDATIONS STATE OF ALASKA
GOVERNORS COUNCIL FOR THE HANDICAPPED AND GIFTED
UNIVERSITY PLAZA OFFICES WEST • SUITE C • 600 UNIVERSITY AVENUE • FAIRBANKS, ALASKA 99701
PHONE (907) 479-6507

February 23, 1981

* During the past two years the Governor's Council for the Handicapped and Gifted established a Vision and Hearing Screening Committee which studied the need for a statewide vision and hearing screening program for all school-age children and developed comprehensive vision and hearing screening standards and guidelines. The committee members included a wide range of community members, physicians, vision and hearing specialists, public health nurses, educational specialists, and representatives of the Departments of Health and Social Services and Education as well as school administrators.

* The Committee finalized its comprehensive report in October 1981 and presented recommendations to the Departments of Health and Social Services and Education. The Department of Health and Social Services attempted to institute vision and hearing screening in place of the presently required physical examinations (AS 14.30.070). Proposed regulations to this effect went to public hearing in December 1980. Due to the amount of testimony received in favor of retaining physical examination requirements, the Department abandoned this effort in favor or supporting statutory change which would include vision and hearing screening and allow persons other than physicians or nurses to conduct the screening.

* The Council believes that vision and hearing screening is important to the school-age community and that every effort should be make to institute the vision and hearing screening programs according to the standards recommended by the Committee. Both the Department of Health and Social Services and the Department of Education are in agreement with the Council.

It is the Council's hope that legislators will support introduction of this important legislation, enact the legislation, and institute statewide vision and hearing screening programs in local school districts during the 1981-82 school year.

John Nuttall
John Nuttall
Council Chairperson-elect
Chairman, Legislative Committee

STATE OF ALASKA
GOVERNOR'S COUNCIL FOR THE HANDICAPPED AND GIFTED
UNIVERSITY PLAZA OFFICES WEST · SUITE C · 600 UNIVERSITY AVENUE · FAIRBANKS, ALASKA 99701
PHONE (907) 479-6507

February 23, 1981

LEGISLATIVE PROPOSAL

VISION AND HEARING SCREENING OF SCHOOL-AGE CHILDREN

PURPOSE: The State of Alaska should insure that adequate resources are provided so that all school-age children receive periodic vision and hearing screening.

NEED: There is a definite relationship between a child's physical well-being and his/her readiness to learn. Seventy-five per cent of all learning is attained through the sense of vision. A great deal of learning is obtained by auditory means. Undetected vision and hearing difficulties can and do adversely affect a child's school adjustment, learning, and health.

While many school districts (22 of 33 districts which responded to a 1980 survey) conduct some type of vision and hearing screening, other districts do not. There is presently no requirement for all children to receive vision and hearing screening.

OBJECTIVES:

School vision and hearing screening programs should be required to:

1. Identify children who may have vision or hearing problems.
2. Inform parents of each child who fails screening of the possibility of a problem.
3. Recommend to the parents, when appropriate, that professional examination and/or treatment be sought and instituted.
4. Refer children who have a vision or hearing impairment (as identified by a physician, audiologist or eye specialist) for evaluation of the educational and communication implications of the hearing loss or vision impairment.
5. Inform the child's teacher of the vision or hearing difficulty.
6. Maintain records of the status of children referred to insure that needed services are obtained whenever possible.
7. Maintain records of the over-all screening program activities and complete and transmit reports of these activities at the close of each school year.

PROGRAM: A statewide screening system must include the following:

1. Regulations, program standards and guidelines adopted by the Department of Health and Social Services in conjunction with the Department of Education.

2. General supervision of school district screening programs by the Department of Health and Social Services:

   Vision Consultant Public Health Nurse in the Division of Public Health for vision screening.

   Communicative Disorders Program in the Division of Public Health for hearing screening.

3. Training and certification of screening personnel by the Department of Health and Social Services.

4. Funding for local school districts on a cost per child basis and funding for general statewide program supervision and training of screening personnel.

RATIONALE: The Department of Health and Social Services position states that:

Screening to detect vision and hearing impairments is a valuable and cost-effective preventive health measure. Simple tests can effectively and efficiently screen large numbers of children at minimal cost in order to identify those children in need of further treatment or intervention. Early identification is critical in order to provide an opportunity for each child to maximize his/her learning experience.

The initiation of periodic vision and hearing screening of school children has been uniformly supported by the Departments of Education and Health and Social Servies, local school districts, public health nurses, native corporations, the Governor's Council for the Handicapped and Gifted, and the private medical community.

With the dramatic rise in health costs in Alaska and the United States, efforts are increasingly being directed to preventive services and to the use, where possible, of non-medical personnel. Screening examinations which can identify children with vision or hearing impairments can be performed effectively, rapidly, and inexpensively by appropriately trained lay personnel. Children who fail the initial screening are referred for further evaluation, diagnosis, treatment, and remediation. Children with chronic or permanent impairments will be identified so that remedial or special education programs can be appropriately provided.

LEGISLATIVE OPTIONS:

PRIORITY 1: New legislation under educational statutes, Section 14 as follows:

"An Act relating to vision and hearing screening in the schools, and providing for an effective date."

Section 14.30.080. Vision and hearing screening required. Vision and hearing screening shall be required for all school children.

(a) Screening shall be done in accordance with regulations promulgated by the Department of Health and Social Services in cooperation with the Department of Education.

(b) The Department of Health and Social Services shall train local school district screening personnel, assist with referral and follow-up of children needing professional examination or treatment, and assist with maintenance and repair of screening equipment.

(c) Local personnel conducting vision and hearing screening shall be trained and certified by the Department of Health and Social Services.

(d) School districts shall receive funds for screening from the Department of Education on the basis of cost per child per screening event.

(e) This Act takes effect July 1, 1981.

PRIORITY 2: Amend existing physical examination statute as follows:

Section 1. AS 14.30.070 is amended by adding a new sub-section to read:

(d) Vision and hearing screening examinations required by regulations promulgated under AS 14.30.065 shall be made by a competent individual authorized by the commissioner of health and social services to perform such tests.

Section 2. This Act takes effect immediately in accordance with AS 01.10.070(c).

FUNDING: The fiscal note for a proposed new statute or an amendment to existing statute for vision and hearing screening is as follows:

DEPARTMENT OF EDUCATION;

Funds to school districts based on $3.00 per screening per child.

1980-81 enrollments in grades to be screened in public schools:

Vision grades		Hearing grades	
K or 1	6,700	K or 1	6,700
3	6,725	2	6,737
5	7,049	3	6,725
7	6,385	7	6,385
11	6,603	11	6,603
	33,462		33,150

Total children eligible = 66,612 x $3/child = $199,836

DEPARTMENT OF HEALTH AND SOCIAL SERVICES;

Vision Consultant Public Health Nurse Position

Anchorage based		
Range 18, PHN III		
Salary $31,680		
Benefits 8,479		
Total	40,159	$40,159

Travel for both vision and hearing consultants (hearing personnel already employed by the Communicative Disorders Program of the Division of Public Health) to train school district and REAA personnel and Public Health Nurses to do screening:

	20,000
Contractual	9,100
Commodities	4,750
Equipment	2,450
	$76,459

TOTAL FISCAL NOTE: $276,295

ALASKA VISION AND HEARING SCREENING

NEEDS

Hearing Screening

Standards

Uniform practices
- program requirements
- program coordination
- program reporting;
  - follow-through;
  - surveillance

Training for screening

Certification of screening personnel

Screening personnel

Funding
- Program Coordination
- Screening Personnel
- Screening equipment
  - purchase
  - maintenance
- Student equipment

Public Education/Awareness

Vision Screening

Standards

Uniform practices
- program requirements
- program coordination
- program reporting;
  - follow-through;
  - surveillance

Training for screening

Certification of screening personnel

Screening personnel

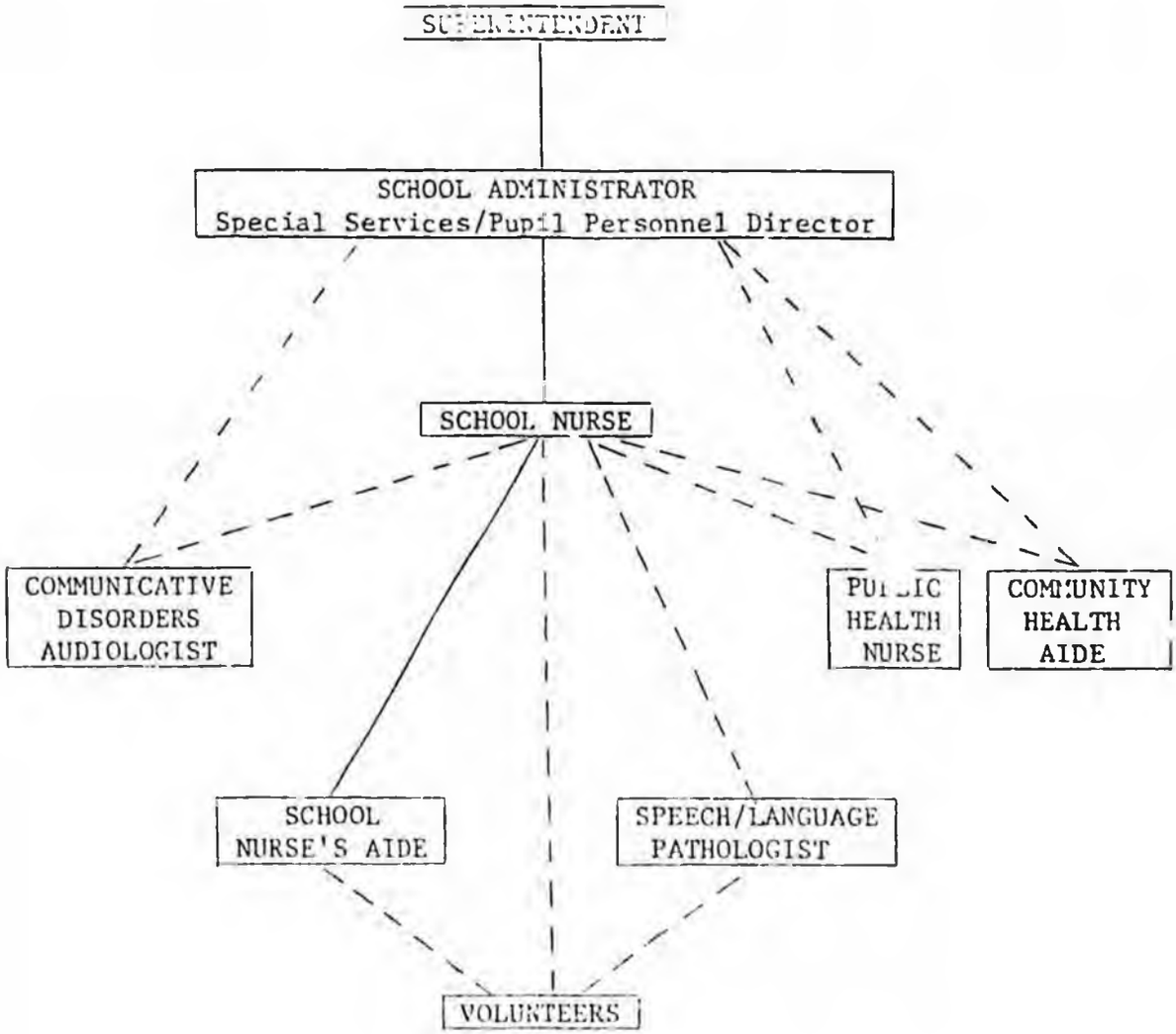
Funding
- Program Coordination
- Screening Personnel
- Student equipment
  - glasses

Same personnel to do both ⟷

- School nurses
- Health clerks -paraprofessionals/ technicians
- Speech & language specialists

(Identified by Vision/Hearing Screening Committee, 1980)

PERSONNEL INVOLVED IN SCREENING FOR WHOM A COORDINATED SYSTEM NEEDS TO BE DEVELOPED



FEB 16 1982

Rural Alaska Community Action Program, Inc.

February 11, 1982

Senator Terry Stimson
State of Alaska
Pouch V
Juneau, Alaska 99811

Dear Senator Stimson:

It is my understanding that you intend to hold a hearing on House Bill 464 and 465 on Friday, February 12th. We appreciate this opportunity to comment. We applaud the efforts of Representative Zharoff in addressing the needs of children of Alaska. Our concern in this particular legislation (i.e., 464 and 465) is that we are once again excluding pre-school children.

We must begin to consider the needs of young children, if we are truly committed to prevention rather than management by crisis. I would like to know specifically if there has been input from Dr. Middaugh, the state epidemiologist, on this matter. The state had a Blue Ribbon Committee on hearing screening and ear disease a year ago. It was a very involved, hard-working committee that developed and produced a very elaborate report and recommendation regarding hearing screenings. It would benefit the HESS Committee of both Houses to review that Blue Ribbon Committee report and consider the recommendations therein and make appropriate amendments.

This is a precedent that is being established here. It is beginning to allow our cumbersome bureaucracies to work together in addressing some important needs of the young child. I believe that it is imperative that we do this in a positive and professional manner. I would conclude with imploring your assistance in getting the state to realize that young children between the ages of 0 and 5 are human beings with needs and should be included in this type of legislation.

Recommendations:

1) That children enrolled in Head Start programs be included:

i.e., Bill 464, line 13

...when the child enters school "or Head Start"... or

2) That the full recommendations of the Blue Ribbon Committee be reviewed.

Please contact me if you have any comments or questions.

Sincerely,

James R. Ayers
Executive Director

cc: Representative Michael Beirne
Representative Terry Martin
Representative Bette M. Cato
Representative Hugh Malone
Representative Sally Smith

RECOMMENDED

ALASKA
VISION SCREENING STANDARDS

OCTOBER 1980

DEVELOPED BY THE VISION/HEARING SCREENING COMMITTEE
OF THE
GOVERNOR'S COUNCIL FOR THE HANDICAPPED AND GIFTED

These Vision and Hearing Screening Standards have been developed through the diligent efforts of the following individuals who represented their respective professions and/or organizations on this subcommittee of the Alaska Governor's Council for the Handicapped and Gifted.

Ms. Jean Lucius	Public Health Nursing
Dr. David Spence	MCH-CCS-Pediatrics
Mr. Tom Buckner	State Department of Education Special Education Section
Dr. Marj Robinson	Rural Special Education Admin.
Dr. Thomas Harbour	Alaska Optometrists Assoc.
Dr. James Patterson	Alaska Opthalmologists Assoc.
Mr. Carl Dixon	Alaska Native Medical Center
Dr. Richard Raugust	Alaska Otolaryngologists
Mrs. Barbara Seidl	School Nursing
Ms. Ann Rogers	N.E.A. Alaska
Mr. Carl Pohjola	School Superintendent
Dr. Jim Ayers	Head Start Program
Dr. David Canterbury (Co-chairperson)	Communicative Disorders Program
Mrs. Jane Brodie (Co-chairperson)	Blind/Visually Impaired Program

Consultants:

Miss Elizabeth Field
Vision Screening Consultant
Arizona Dept. of Health

Mr. Jim Nelson
Child Health Section
Illinois Department of Health

TABLE OF CONTENTS

1.0 INTRODUCTION

The State of Alaska is committed to the belief that each child has a right to an equal opportunity for a quality education. Research has shown that there is a relationship between a child's physical well-being and his or her readiness to learn. Since up to 75% of all learning is attained through the sense of vision, vision difficulties can adversely affect a child's learning. High quality vision screening programs identify those children who need diagnostic attention by an eye specialist (ophthalmologist/optometrist) in order that their visual condition is treated and/or corrected to the best possible status.

Effective screening involves implementing uniform policies and methods by trained personnel using appropriate equipment; and adhering to well organized referral; follow-up; and reporting procedures. Programs of high quality can be established through the cooperative efforts of (1) school personnel, i.e., school nurses, teachers, teacher aides; (2) health personnel, i.e., public health nurses, community aides, physicians, ophthalmologists and optometrists; and (3) appropriately trained volunteers.

Two things need to be emphasized in screening programs. The first is that screening procedures are not intended to be diagnostic. It is improper to conclude that persons who fail screening procedures have vision loss. Screening selects the population that needs further, more refined evaluations. Parents and visual screeners should be instructed to seek a professional visual evaluation by an eye specialist (ophthalmologist/optometrist) whenever they have any doubt about any child's vision, regardless of any recent vision screening with normal results.

Secondly, the diagnostic process which follows screening may identify those youngsters who after best correction still have a vision impairment to such an extent that they meet the eligibility criteria for special education. At this time, the educational implications of a vision loss need to be added to the medical implications. Too often the sole goal is referral of medical needs of those who fail screening procedures.

Objectives of a School Vision Screening Program are:

1. To identify the children who may have eye problems.

2. To inform parents of each child who fails the screening of the possibility of a problem.

3. To recommend to the parents, when appropriate, professional visual evaluation and care be sought for children with possible visual problems.

1.0 INTRODUCTION (Continued)

4. To pursue the matter until an examination is made and appropriate evaluation and/or treatment is instituted.

5. To inform teachers of their students' visual difficulties and its resolution.

6. To refer children who have a vision impairment (as identified by an eye specialist), for evaluation in the unique educational implications of the vision impairment.

7. To maintain records of the status of children referred to insure that needed services are obtained whenever possible.

8. To maintain records of the overall screening program activities and complete and transmit as required annual reports of this activity at the close of each school year.

2.0 SCREENING PROCEDURES

Vision screening involves testing in an abbreviated way, large numbers of children. The main purpose is to identify children who are in need of a diagnostic visual examination and to refer them for professional diagnosis.

From the following screening schedule it is apparent that the specific screening tests used will vary from one grade to another. It is recommended that the age appropriate battery of tests be administered at one time. The frequencies of screening stated below are minimal standards state-wide for Alaska. More frequent screening may be justifiable based on local circumstances.

2.1 POPULATIONS TO BE SCREENED

2.1.1 SCREENING SCHEDULE

SCREENING PROCEDURE	GRADES							
	*Preschoolers	K and/ or 1	3	5	7	11	ALL SPEC ED STUDENTS ANNUALLY	ALL NEW STUDENTS
Observation	At all grade levels - P-12						X	X
Distance Visual Acuity	X -	X	X	X		X	X	X
Cover/Uncover	X	X		X			X	X
Color Deficiency	Once after grade six for all students							After Grade six

2.1.2 Waivers

A child is exempt from screening or testing if a parent, guardian, or person in loco parentis of the child presents a written statement or given verbal notification to the administration of the child's school that the parent, guardian, or person in loco parentis does not wish the child to be screened.

2.2 TYPES OF SCREENING

2.2.1 Observation

Observation of visual behavior is one of the most important means of determining potential visual problems. Observation

*Preschoolers (1) Ages 2 1/2, 3 or 4.
(2) School districts are not required to screen preschoolers until school entry.
(3) Other agencies who are involved in children of this age should adhere to these standards.

2.2 TYPES OF SCREENING (Continued):

2.2.1 Observation (Continued):

should be an ongoing activity and performed by all persons who are in contact with children, i.e., teachers, aides, volunteers, parents, relatives, and other health personnel. See "Observation--Signs of Eye Trouble" - Appendix A.

2.2.2 Distance Visual Acuity:

Distance Visual Acuity is the most important single test of visual function. Distance Visual Acuity tests the individual's ability to see and to report correctly forms seen under standards testing conditions. The following screening test symbols are recommended and are ranked in decreasing order of difficulty and effectivity.

1. Snellen Letter - may be used for 1st grade and above.

2. E Chart - may be used with pre-school, K, and special education students.

3. Hand Chart - may be used with pre-school, K, and special education students.

4. Picture Chart - reliability less refined as with above tests useful with pre-school and special education students.

2.2.3 Cover/Uncover Test:

The cover/uncover test will determine any abnormality of muscle imbalance or ocular alignment. The eyes must be properly aligned to have binocular vision. Muscle balance screening is especially important in young children to detect such conditions as strabismus which may produce ambloypia. If muscle imbalance is detected and properly treated before the age of 4 to 6, visual prognosis is good.

2.2.4 Color Test:

Assessment of color vision does not need to be made until a student has reached grade 6 and need be made only once. Deficiency in color vision is not correctable, but is important for the individual and his parents, and appropriate personnel to be aware of such a deficiency. A knowledge of color deficiency is important in art, science, safety, and vocational counseling. Color vision can be screened by using appropriate sets of color plates. (See Section 6.2)

2.3 RESCREENING OF FAILURES

If a child fails one or more of the tests (except color) he/she should be rescreened with the failed test on a subsequent day.

2.3 RESCREENING OF FAILURES (Continued)

optimally about one week later. If the student again fails, he/she should be referred under the criteria and methods listed in Section 3.0 - Referrals. This rescreening procedure is necessary to prevent over-referrals. It should be noted that in remote areas rescreening may have to be done on the same day.

2.4 SCREENING OF CHILDREN WHO WEAR GLASSES OR CONTACT LENSES

Vision of children who wear glasses or contact lenses should be tested with their glasses or contact lenses in place. The determination of the need for a referral should be based on levels of referral delineated in Section 3.0.

2.5 TEST ENVIRONMENT

It is recommended that an isolated area at least 20 feet long be made available to conduct vision screening with Snellen charts. Room lighting recommended is 10 to 30 foot candle power. Where equipment is not available to determine this, normal lighting for school work will provide adequate illumination to conduct vision screening. Be sure there is no glare or shadows on the charts.

2.6 VISION SCREENING MACHINES

If your district is considering using vision screening machines, it is recommended you contact the Maternal and Child Health Department of Public Health for information on these machines. The vision consultants on this committee discourage their use.

3.0 REFERRALS

One of the most crucial aspects of vision screening is referral for a professional diagnostic visual evaluation of those students who fail any area of the vision screening after rescreening. The referral for a professional visual evaluation should be initiated and monitored by the school district; however, ultimate responsibility for follow through rests with the parents. It is important therefore to involve the parents in the process at the earliest possible time. (See Figure 1 on page 7.)

3.1 CRITERIA FOR REFERRAL

SCREENING PROCEDURE	AGE	CRITERIA
Distance Visual Acuity	3, 4, or 5 year olds	Two lines of difference in acuity between the Right and Left Eye OR, 20/50 or Less in one or both eyes
	6 year olds and above - including students wearing glasses, and contact lenses	20/40 or Less in one or both eyes
Cover/Uncover	All Ages	Any movement indicative of a tropia or large phoria
Observation	All Ages	Any child who has an obvious sign of eye defect or valid eye complaints

3.2 REFERRAL FOR PROFESSIONAL DIAGNOSTIC VISUAL EVALUATION

Any individual who fails one vision screening test on two occasions should be referred for a professional diagnostic visual evaluation by an eye specialist. Figure 1 on page 7 diagrams the referral process.

3.3 REFERRAL FOR SPECIAL EDUCATION PLACEMENT

A child with a visual impairment may be eligible for special education placement in accordance with the eligibility guidelines in the current Alaska Special Education Handbook of the Department of Education.

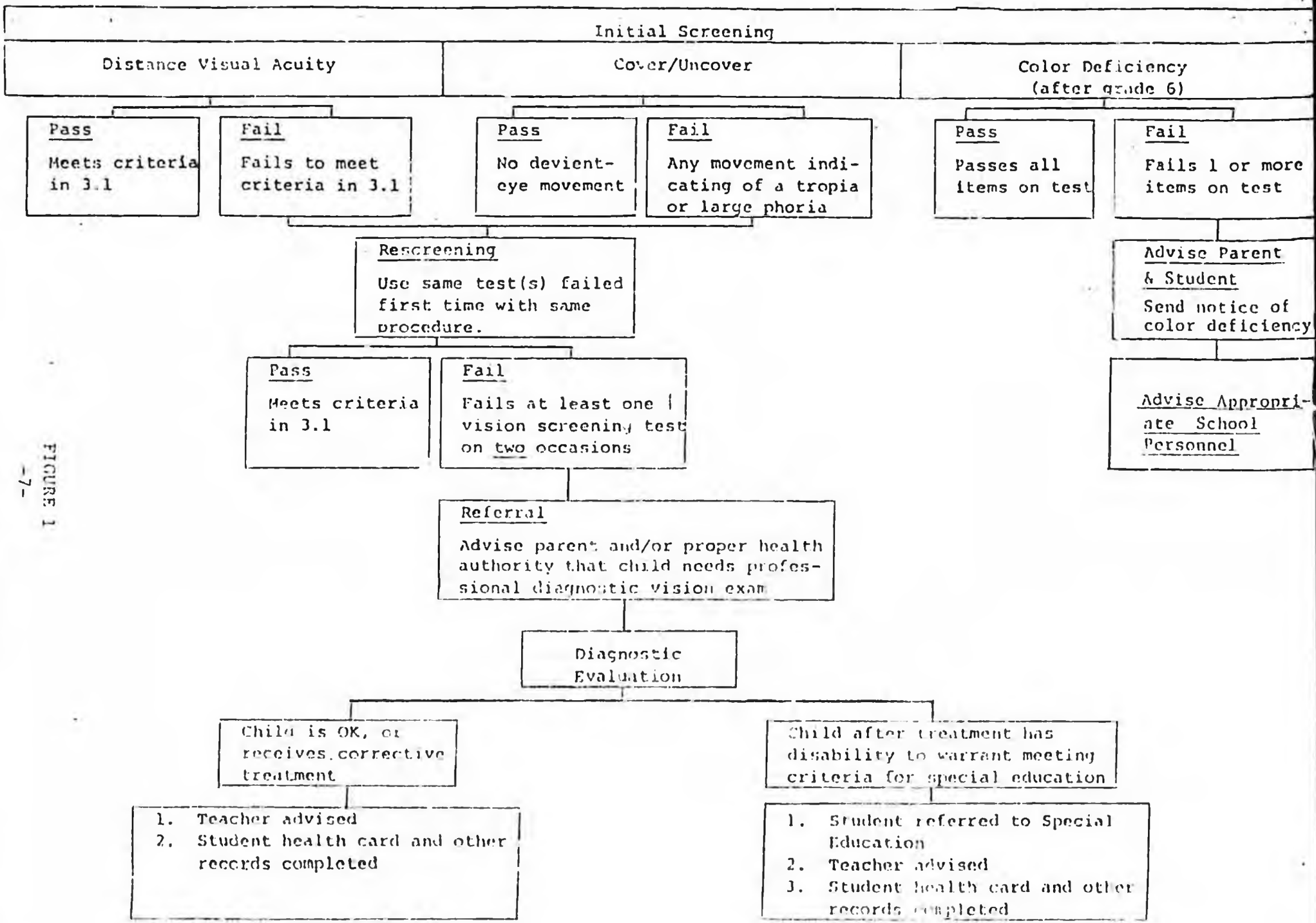

Initial Screening
Distance Visual Acuity
Cover/Uncover
Color Deficiency (after grade 6)
Pass
Meets criteria in 3.1
Fail
Fails to meet criteria in 3.1
Pass
No devient-eye movement
Fail
Any movement indicating of a tropia or large phoria
Pass
Passes all items on test
Fail
Fails 1 or more items on test
Rescreening
Use same test(s) failed first time with same procedure.
Advise Parent & Student
Send notice of color deficiency
Pass
Meets criteria in 3.1
Fail
Fails at least one vision screening test on two occasions
Advise Appropriate School Personnel
Referral
Advise parent and/or proper health authority that child needs professional diagnostic vision exam
Diagnostic Evaluation
Child is OK, or receives corrective treatment
Child after treatment has disability to warrant meeting criteria for special education
1. Teacher advised
2. Student health card and other records completed
1. Student referred to Special Education
2. Teacher advised
3. Student health card and other records completed

FIGURE 1

4.0 RECORDKEEPING, REPORTING, AND FORMS

A vital component of the vision screening program is the recordkeeping and reporting process. The individual in each district who has been designated to coordinate vision screening activities should also be responsible for recordkeeping and reporting as is stipulated below:

4.1 CONFIDENTIALITY

Individual screening and testing records shall be confidential as required by district policy. The records shall be available to health agencies to assist in obtaining proper and necessary health and educational care.

4.2 MANAGEMENT

The following forms should be used in the manner recommended below when conducting the vision screening process.

4.2.1 Reporting Observations

At the outset of each school year the information sheet Observation--Signs of Eye Trouble and the Student Observation Form should be distributed to each teacher in the district. The Observation--Sign of Eye Trouble is meant to inform teachers of the types of behavior exhibited in the classroom which might indicate a vision disorder. The Student Observation Form comes in duplicate and is used for referring those students to the individual responsible for screening. The second copy is to be kept by the teacher for classroom records. Samples of these forms are in Appendix A and B.

4.2.2 Recording Daily Screening Activities

The form Vision Screening Worksheet should be used by the screener to record the daily screening activities. Data from these forms will be used in the Annual Vision Screening Report submitted at the end of each school year. A sample of the Vision Screening Worksheet is in Appendix C.

4.2.3 Referrals to Parents

4.2.3.1 Professional Diagnostic Visual Evaluation

When, as a result of vision screening, it is determined that a professional diagnostic visual evaluation is needed, the parents should be notified by mail, by telephone, or by parent conference. Use of the Parents Referral Form is

4.2.3.1 Professional Diagnostic Visual Evaluation (Cont.)

recommended. This form informs the parent of the reason for the referral and has a "tear off" portion which the eye specialist can use to report findings back to the schools. The form comes in duplicate, one copy to be kept by the referring party. See sample in Appendix D.

4.2.3.2 Color Vision

When color deficiency has been detected the parents should be notified by sending them the form Parents Notification of Color Deficiency or by direct parent contact. A sample of this form is in Appendix E. The appropriate school personnel should also be notified.

4.2.4 Exam Results and Recommendations

When the results of the professional diagnostic visual evaluation are returned to the coordinator of vision screening, these results should 1) become part of the individual's school health record, 2) be communicated to the individual's teacher(s), and 3) be considered if a child study team is reviewing a child for special educational services.

4.2.5 School Health Records

School health records will exist in varying form from district to district. Entry should be made in the health record whenever the child has failed screening and rescreening tests. The subsequent referral for professional diagnostic visual evaluation should be traceable in the record.

4.2.6 Annual Report

During April or May of each year an annual report of vision screening activities should be completed using the screener's copy of the Screening Worksheet, Parent Referral Form, Parent Notification of Color Deficiency, and professional diagnostic evaluation reports as sources of input. A sample of the Annual Vision Screening Report is included in Appendix F. A copy of this report should be sent to Vision Screening Consultant, Department of Health & Social Services, Section of Family Health.

5.0 PERSONNEL AND TRAINING

5.1 PERSONNEL

State: Coordination and administration of vision screening at a state level should be the responsibility of a full time Vision Screening Consultant from the Department of Health & Social Services. The Vision Screening Consultant shall develop and conduct training programs, monitor compliance to standards, coordinate screening services performed by various agencies in the state, keep all state records and reports regarding vision screening, and disseminate information about vision screening.

Local: The administration of vision screening should be the responsibility of superintendent of the school district. The superintendent should designate the management or direction of the vision screening program to a local health care provider such as a school nurse or public health nurse. This individual should be certified in vision screening by the State Vision Screening Consultant to assure that districts' standards and procedures for follow-up activities are known and followed.

Alaska school districts may employ or contract personnel for this purpose. The needs of some districts may be best served by establishing an agreement with the appropriate local public health nurse's office or regional public health agency to provide the supervisory and consultative function.

In managing the vision screening program the local health care provider should perform the following duties:

a) Arrange a screening schedule and notify all involved.
b) Administer screenings and rescreenings.
c) Notify parents of referrals.
d) Follow-up on referrals.
e) Complete recordkeeping and reporting.

The local health care provider may arrange for the training of other individuals such as teachers, aides, volunteers (to be known as screeners) to administer the vision screenings and rescreenings. School districts should make an effort to employ reasonable permanent screeners; persons who understand that they carry screening responsibility over a period of time and thereby have an opportunity to accumulate knowledge and develop necessary skills.

5.2 TRAINING

It is recommended that the State Vision Screening Consultant of the Department of Health & Social Services, develop the curriculum for a training program for vision screeners and that this program also establish certification and recertification procedures for such personnel, including the use of a competency based test. A minimum of eight hours of training, including practicum is

suggested for new screening team members. A minimum of two hours refresher training should be provided by or under the direction of the State Vision Screening Consultant. Training procedures for vision screening should be designed to provide personnel with basic knowledge of vision and its effect on learning and with technical skills adequate to perform the screening task properly. Training should ensure that screeners develop competencies in:

1. Operation of screening equipment.
2. Identification of improperly functioning equipment.
3. Instruction-giving.
4. Conditioning techniques.
5. Eliminating inappropriate cues.
6. Evaluating the reliability of responses.
7. Making pass/fail judgements.
8. Identifying the difficult-to-test child.
9. Follow-up procedures.
10. Accurate recording of data.

Additionally, training should include a competency based evaluation of the knowledge and skills acquired by the screener to ensure that he/she meet minimum competencies. Evaluation should be done annually.

6.0 MATERIALS AND EQUIPMENT

Each local education agency should provide and make available for its vision screening program those testing materials recommended in the Screening Procedures Section 2.2 and 2.4. Sources for those materials are listed below.

6.1 Tests for Screening Visual Acuity

Snellen Letter & E Charts with Cover Cards

National Society for the Prevention of
Blindness
79 Madison Avenue
New York, N.Y. 10016

Snellen Letter & E Charts, Picture Charts

The Lighthouse
New York Association for the Blind
111 E. 59th Street
New York, N.Y. 10022

Snellen Letter & E Charts, Picture Charts

American Optical Company
312 Dexter Avenue North
Seattle, Washington 98109

Sjogren Hand Test

The House of Vision, Inc.
135-137 N. Wabash Avenue
Chicago, IL 60602

Stycar Screening Tests

National Foundation for Education Research
in England
London, England

6.2 Tests for Screening Color Vision

Gay's Color Test for Children

Western Optical Corporation
1706 Mercer
Seattle, Washington 98109

[illegible] Test

The Good-Lite Company
7450 W. Madison Street
Forest Park, IL 60130

Pseudo-Isochromatic Plates

American Optical Company
312 Dexter Avenue North
Seattle, Washington 98109

6.3 Stereoscopic and other machines for screening various components of vision:

American Optical Child's Vectrograph and Project-O-Chart

American Optical Company
14 Mechanic Street
Southbridge, MA 01550

Bausch and Lomb School Vision Tester

Bausch and Lomb
635 St. Paul Street
Rochester, NY 14602

Good-Lite Vision Screener

Good-Lite Company
7426 W. Madison Street
Forest Park, IL 60130

Keystone Telebinocular (Keystone Preschool Test used for young children with the No. 46 Telebinocular available)

Keystone View Company
Meadville, PA 16335

Titmus Vision Tester

Titmus Optical Company, Inc.
1015 Commerce Street
Petersburg, VA 23803

APPENDIX A

OBSERVATION -- SIGNS OF EYE TROUBLE

Observation of a pupil's behavior and appraisal of a pupil's achievement are exceedingly important as unusual behavior, poor school performance, and reduced rates of learning may indicate visual problems.

Signs and symptoms of visual problems:

1. Viewing Behavior

    a. Holds work too close or too far.
    b. Asks for special seating.
    c. Thrusts head forward to see distant objects.
    d. Holds body tense when reading or looking at distant objects.
    e. Frowns or squints when regarding or when trying to see distant objects.
    f. Attempts to brush away a blur.
    g. Rubs eye frequently.
    h. Blinks continually when reading.
    i. Tilts head.
    j. Covers or closes one eye.
    k. Exhibits poor muscle coordination.

2. Complaints

    a. Eyes are sensitive to light, photophobia.
    b. Eyes or lids burn or itch.
    c. Images appear blurred or doubled.
    d. Letters and lines run together.
    e. Words seem to jump.
    f. Frequent headaches associated with visual tasks.

3. Appearance

    a. Eyes water or appear bloodshot.
    b. Eyes that are not properly aligned are crossed or turned out.
    c. Eyes in constant motion, nystagmus.
    d. Eyes with pupils of different sizes and reaction to light and accommodation.

The above symptoms or signs constitute reasons for special vision screening.

APPENDIX B

STUDENT OBSERVATION REPORT

School_____ Teacher_____

Room_____ Grade_____ School Year_____ Semester_____

Purpose: To identify those students' whose behavior, reports, appearance, or records indicate a need for assistance or service.

DATE OBSERVED	STUDENT NAME	STATEMENT OF OBSERVED PROBLEM	FOLLOW-UP (to be completed by health screener)

This form will be returned to teacher when follow-up is completed, for teacher's information.

When form is returned, information on the students will have been placed on Students' Health Records by health screener.

F = Fai[illegible]

District ____________

VISION SCREENING WORKSHEET

NAME		Grade & Room	DATE	First Screening							DATE	Second Screening							COMMENTS	Date Ref. to Parents	Info on Health Record
				Acuity			Cover/ Uncover		Color			Acuity			Cover/ Uncover		Color				
Last	First			Rt	Lf	Both	P	F	P	F		Rt	Lf	Both	P	F	P	F			

APPENDIX C

APPENDIX D

VISION SCREENING REFERRAL

_____
SCHOOL DISTRICT

To the parents of: _____ Date of Birth _____

School: _____ Date _____

As a result of a recent vision screening at school, we believe that your child should have a complete professional eye examination. Please give this form to your ophthalmologist/optometrist to complete and then return it to school. We urge you to give this your prompt attention.

Your child's performance on vision screening:

Snellen Test for Distance Vision

R eye _____ ; L eye: _____ ; Both eyes _____

Cover/Uncover

Right eye OK _____ Deviation _____
Left eye OK _____ Deviation _____

Observation of symptoms and/or comments: _____

_____

_____ _____
Signature of Tester Signature of Duly Authorized School Personnel

---

PROFESSIONAL EYE EXAMINATION

Note to the ophthalmologist/optometrist:

The above child has not passed the vision screening. Please complete this form for parents to return to the school. Thank you

Visual Acuity	Distance Vision		Near Vision	
	without correction	with correction	without correction	with correction
Right Eye (O.D.)	_____	_____	_____	_____
Left Eye (O.S.)	_____	_____	_____	_____
Both Eyes (O.U.)	_____	_____	_____	_____

Field of Vision:

Diagnosis and Prognosis:

Treatment (if any):

When should glasses be worn:

Re-examination recommended:

_____ _____
Date of Examination Signature of Eye Physician

A P P E N D I X E

PARENT NOTIFICATION REGARDING COLOR DEFICIENT TEST

_____
SCHOOL DISTRICT

To the parents of:_____Date of Birth_____

School:_____Date_____

During a recent vision screening, results indicate that your child has some degree of color deficiency. Although this problem cannot be corrected, and usually does not affect how a person sees, it is important that the student and people close to the student are aware of this color deficiency.

The main reason for color deficiency testing is to alert the student and his/her parents about the color deficiency since in the future there may be implications in planning or preparing for certain jobs or careers.

Information regarding results of the color deficiency test will be recorded on his health record, and education record, to alert school personnel who work with, or counsel, your child.

If you have any questions regarding results of this screening, please feel free to contact the school nurse or to consult an eye specialist.

Additional remarks.

Health Screener:_____

School:_____ _____

ARE MELTED, BUT PRIOR
TO SUMMER VACATION.

ANNUAL VISION SCREENING REPORT

SCHOOL: _____ DISTRICT _____ SCREENER _____ DISCIPLINE _____

ADDRESS: _____ CITY _____ AVERAGE ENROLLMENT _____

GRADE	NUMBER SCREENED	# of Failures on Each Test After Rescreening			TOTAL REFERRED	RECEIVED EVALUATION	SAW EYE SPECIALIST		REFERRALS NOT YET COMPLETED
		Visual Acuity	Cover/ Uncover	Color			No Treatment	Received Treatment, Medication, Lenses	
Pre-K									
Sp. Ed.									
K									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
TOTAL									

Shaded Areas are recommended for annual screening.

APPENDIX G

GLOSSARY

Amblyopia - Dimness of vision without any apparent disease of the eye. *Amblyopia ex anopsia* - Dimness of vision due to disuse of an eye with no apparent physical abnormality.

Astigmatism - Defective curvature of the refractive surfaces of the eye as a result of which light rays are not sharply focused on the retina for either nearness or distance.

Binocular Vision - Using the two eyes simultaneously to focus on the same object and to fuse the two images into a single image.

Candle Power - or "Foot Candle" - Unit of measurement of light intensity. One foot-candle equals the amount of light cast by a standard candle at a distance of one foot from the light.

Color Vision - The ability to discriminate colors. *Color deficiency* - The inability to discriminate between certain colors, usually red-green, seldom blue-yellow. Pseudo-isochromatic plates are used for testing for color deficiency.

Cover/Uncover Test - A test which discloses whether or not the two eyes function together as they should.

E Chart - Chart with only the letter E of specified sizes and in various positions printed in rows.

Eye Specialist - Ophthalmologist or optometrist

Field of Vision - The entire area which can be seen at one time without shifting the head or eyes.

Glare - A quality of light which causes discomfort in the eye; it may result from a direct light source within the field of vision or from a reflection of a light source not in the field of vision.

Hand Chart - Chart with a picture of a hand of specified sizes and in various positions in rows. Also referred to as Sjogern Hand test.

In Loco Parentis - In place of the parent without formal legal custody.

Ophthalmologist - A physician who has specialized in the diagnosis and treatment of vision defects and diseases of the eye. He may prescribe glasses, contact lenses, and other corrective measures and may perform surgery. He uses the initials M.D. after his name.

Optician - A maker and dealer in optical instruments who fills prescriptions for glasses by grinding lenses, fitting them into frames, and adjusting frames to the wearer.

Optometrist - A person who has done advanced study on vision, vision problems, and visual performance. He is licensed by law to examine eyes and vision and to prescribe and provide glasses, contact lenses, and orthoptic training. He uses the initials O.D. after his name.

Phoria - A latent tendency toward crossed eyes. "*Phoria*" is used with a prefix to determine the direction of such deviation (hyperphoria, up; esophoria, in; exophoria, out).

Picture Chart - Chart using symbols which conform to Snellen test sizes and are printed in rows.

Pre-Schoolers - Youngsters below kindergarten age. For screening purposes usually ages 2½, 3, and/or 4.

Professional Vision Evaluation - A complete examination of the visual system by an ophthalmologist or optometrist.

Screeners - A person trained and certified to administer vision screening to children in the school screening program.

Snellen Letter Chart - Chart with a number of letters of the alphabet of specified sizes printed in rows.

Strabismus - Failure of the two eyes to direct their gaze at the same object because of muscle imbalance; crossed-eyes or wall-eyes.

Tropia - A manifest or observable deviation of the eyes from normal position for binocular vision. "*Tropia*" is used with a prefix to denote a type of strabismus, as heterotropia, esotropia, exotropia.

20/20 Vision - The ability to correctly perceive an object or letter of a designated size from a distance of 20 feet; normal visual acuity.

Vision Screening - A procedure for detecting possible abnormality of the visual system with referral for correction, treatment, or appropriate school placement. This identification of possible vision problems shall not be considered diagnostic.

Visual Acuity - Sharpness of central vision for detail, as in reading. *Central visual acuity* - Ability of the eye to perceive the shape and form of objects in the direct line of vision.

Visually Impaired Children (for purpose of special education) - Those children who are defined as blind or partially sighted in the Alaska Department of Education Special Education Handbook.

RECOMMENDED

ALASKA
HEARING SCREENING STANDARDS

OCTOBER 1980

DEVELOPED BY THE VISION/HEARING SCREENING COMMITTEE
OF THE
GOVERNOR'S COUNCIL FOR THE HANDICAPPED AND GIFTED

TABLE OF CONTENTS

1.0 INTRODUCTION

The State of Alaska is committed to the belief that each child has the right of an equal opportunity to a quality education. It has been shown that there is a relationship between a child's physical well-being and his or her readiness to learn. Since a good deal of learning is obtained by auditory means, hearing difficulties may adversely affect a child's school adjustment. High quality hearing screening programs identify those children who need diagnostic attention by a physician and/or an audiologist in order that their hearing loss is treated and/or corrected to the best possible status. Effective screening involves implementing uniform policies and methods by trained personnel using appropriate equipment; and adhering to well organized referral; follow-up; and reporting procedures. Programs of high quality can be established through the cooperative efforts of (1) school personnel, i.e., school nurses, educational audiologists, communicative disorders specialists, teachers, teacher aides; and (2) health personnel, i.e., public health audiologists, public health nurses, community health aides, and physicians.

Two things need to be emphasized in screening programs. The first is that screening procedures are not intended to be diagnostic. It is improper to conclude that persons who fail screening procedures have hearing loss. Screening selects the population that needs further, more refined evaluations. The audiological/medical process which follows screening provides the identification of hearing loss as well as diagnostic and habilitative information. Secondly, the educational and communication implications of hearing loss need to be balanced with the medical implications. "Too often the sole goal is referral of medical needs of those who fail screening procedures".

Objectives of a School Hearing Screening Program are;

1. To identify the children who may have hearing problems.

2. To inform parents of each child who fails the screening and subsequent threshold testing of the possibility of a problem and to recommend to the parents, when appropriate, that audiology and/or physician's examinations and care be sought for children with possible hearing deficits.

3. To pursue the matter until the appropriate evaluation and/or treatment is instituted.

4. To refer children who have a hearing deficit, (as identified by an audiologist or physician), for evaluation of the educational and communication implications of the hearing loss.

5. To inform the child's teacher of the hearing difficulty.

6. To maintain records of the status of children referred to insure that needed services are obtained whenever possible.

7. To maintain records of the overall screening program activities and complete and transmit as required annual reports of this activity at the close of each school year.

2.0 SCREENING

Screening audiometry involves testing in an abbreviated way, large numbers of pupils, resulting in the ready identification of those who have hearing sensitivity within normal limits and those tentatively identified as having hearing problems.

With respect to the number of professionals and paraprofessionals, equipment, time and financing available, an effective annual screening program should be initiated for the target populations described below:

2.1 POPULATIONS TO BE SCREENED

It is recommended that screening be provided for the following students on an annual basis.

2.1.1 Grades K, 1, 2, 3, 7, 11.

2.1.2 All Special Education students with conditions associated with a high prevalence of hearing loss.

2.1.3 New students.

2.1.4 Referrals from teachers and outside sources.

2.1.5 Preschool students.

Preschool children should be screened by technicians having special emphasis in this area or by school nurses, public health nurses, audiologists and communicative disorders specialists similarily trained. Supervision should be provided for screening by a fully qualified audiologist to insure valid results.

School districts are not required to screen preschoolers until school entry. Other agencies who are involved in screening children of this age should adhere to these standards.

2.1.6 Waivers

A child is exempt from screening or testing if a parent, guardian or person in loco parentis of the child presents a written statement or has given verbal notification to the administrator of the child's school that the parent does not wish the child to be screened.

2.2 TYPES OF SCREENING

2.2.1 Observations of Behavior

Certain behavior characteristics of the hearing impaired student may alert the teacher, parents or health personnel to possible hearing loss. A list of these observations is included in the Appendix.

2.2.2 PURE TONE SCREENING - LEVELS AND FREQUENCIES

Pure tone screening at 20 dB for 1000, 2000 and 4000 Hz is required. If no response is obtained at 4000 Hz the level may be increased to 25 dB. Specific procedures for pure tone screening are in the pamphlet "Audiometric Screening - Procedures and Forms" available through the Communicative Disorders Program, Division of Public Health and is included in the Appendix.

2.2.3 IMPEDANCE/IMMITANCE SCREENING**

Impedance screening for middle ear disorders is required for children from preschool to third grade inclusively and for Special Education students as indicated in 2.1.2. This procedure is also useful with populations that are not testable by other means. Determination of the need for this type of testing should be made at the local level jointly by medical, school and speech & hearing personnel. Whenever such screening is conducted the following precaution should be taken:**

A. Medical referral criteria, channels and protocol should be established prior to the initiation of any screening. These should be made available in writing for all participating parties. Individuals doing the screening should be trained and supervised by a certified audiologist.

B. Medical referral protocol should include provision for test/retest prior to referral (at an interval from 4 - 12 weeks) to guard against over referral of transitory problems. (When screening is done with impedance failure results should not be viewed as an obvious reason for immediate medical referral but often as cause for follow-up testing which may or may not result in medical referral or developmental evaluation at a later date.)

C. Impedance screening programs for middle ear pathology may by phased in over a 3 year period to allow screening programs to obtain the necessary instrumentation, training and to develop referral procedures. The efficacy of impedance screening should be evaluated and reported annually for at least the first 3 years of its implementation.

2.4 KNOWN HEARING LOSS

Students with known hearing loss should receive threshold tests of hearing sensitivity annually or on a scheduled periodic basis as needed. A retest schedule for high frequency losses should be established in consultation with the supervising audiologist.

2.5 TEST ENVIRONMENT

It is recommended that space used for screening be made as quiet as possible to insure that high ambient noise does not invalidate screening results. If noise levels are excessive, screening should not be attempted but deferred until a more quiet time or place can be identified.

** See majority and minority report on this issue in Appendix C

3.0 REFERRALS

Referral procedures should be tailored to the specific locality in which the students reside. The referral for audiological, medical and rehabilitation should be initiated and monitored by the school district however, ultimate responsibility for follow through rests with the parents. It is important therefore to involve the parents in the process at the earliest possible time. A referral plan should be developed cooperatively with medical, audiological and educational entities in the area prior to the initiation of screening activities. This plan should be made available in written form so that all parties are familiar with the process and criteria for referral.

3.1 AUDIOLOGIC REFERRALS

3.1.1 Criteria for Audiologic Referral

Students should be referred for audiologic evaluation when any one of the following circumstances exist.

3.1.1.1 Puretone screening tests have been failed twice.

3.1.1.2 Impedance/immittance screening indicates persistant negative middle ear pressure, a persistently non-compliant ear drum or a large canal volume.

3.1.1.3 The student has a known hearing loss and is in need of recheck.

3.1.1.4 An audiologic evaluation has been requested by a Child Study Team, a health services provider or parent.

3.1.2 Purpose of Audiologic Evaluation

An audiologic evaluation provides minimal hearing sensitivity results for those pupils who failed the screening tests. Specialized tests such as bone conduction, speech audiometry, site of lesion, hearing aid evaluation, etc. and materials appropriate to the diagnostic process should be employed by audiologists.

Among the reasons for complete audiologic evaluation are:

3.1.2.1 Case finding to prevent the growth of diseases and conditions that lead to hearing loss.

3.1.2.2 Identification of pupils with hearing defects.

3.1.2.3 Referral for medical examination and treatment to restore hearing when possible.

3.1.2.4 Definition of the type and extent of hearing loss.

3.1.2.5 Monitoring the status of individuals with known hearing loss.

3.1.2.6 Aid in planning habilitation and rehabilitation programs for those with chronic or permanent hearing losses.

3.1.3 Procedure for Audiologic Referrals

3.1.3.1 If the pupil still cannot pass the screening test after the second screening, an audiologic evaluation including at least air and bone conduction threshold tests should be accomplished within an additional 7 to 10 day period. All of these tests should be conducted by appropriately trained personnel. (See Section 5.1 and 5.2)

3.1.3.2 If the school district has the services of an audiologist referrals should be made directly to him/her after the second screening.

3.1.3.3 If no school audiologist is available, especially in rural areas, referrals should be made to the community health aide and public health nurse or school nurse who will in turn refer to the Communicative Disorders Program when appropriate.

This model is the preferred procedure to be followed. However, the program which will best serve the pupils in a specific area with the available qualified personnel, both professional and paraprofessional, should be utilized.

3.2 MEDICAL REFERRAL —

A medical referral and management protocol should be established and made available in written form prior to the initiation of any screening efforts. The exact referral system employed will depend upon the availability of physicians, nurses, audiologists, physician's assistants etc. The procedure shall follow the same basic format as is depicted on Page 7 however, personnel will vary according to region.

Cases needing prompt medical attention may be so referred without prior audiological evaluation by school or public health nurses as the need indicates.

3.3 REFERRAL FOR EDUCATIONAL PLACEMENT

A child with a hearing impairment may be eligible for special education placement in accordance with the eligible guidelines in the current Alaska Special Education Handbook.

Every child who has been identified as hearing impaired (2 frequency pure tone loss of 20 dBHL or more for the speech range) must be considered to be a possible candidate for educational programs for the hearing impaired. The immediate responsibility of the school system will then be to determine whether educational assessment of each child should take place. A standard district preassessment procedure should be followed. The decision concerning referral for educational assessment should be made in conjunction with the parents and the classroom teacher, on the basis of audiological information and a review of the child's school performance.

If the preassessment process indicates that an educational assessment is advised, the student should be next referred to Special Education for Child Study Team evaluation. With the parents' permission, assessment of the child's educational needs may then take place. This can best be accomplished through the services of an educational assessment team made up of qualified professionals employed by the school system as is required by regulation. It should be emphasized that not all children defined as hearing impaired, above, will require complete educational assessment. Since the impact of mild hearing loss on educational performance has only recently become of interest to researchers, it is not possible to suggest the proportion of these children who will need special education services. The figure may be quite low. However, given the consequences of ignoring significant loss, all children at that hearing level and below should have the benefit of preassessment review.

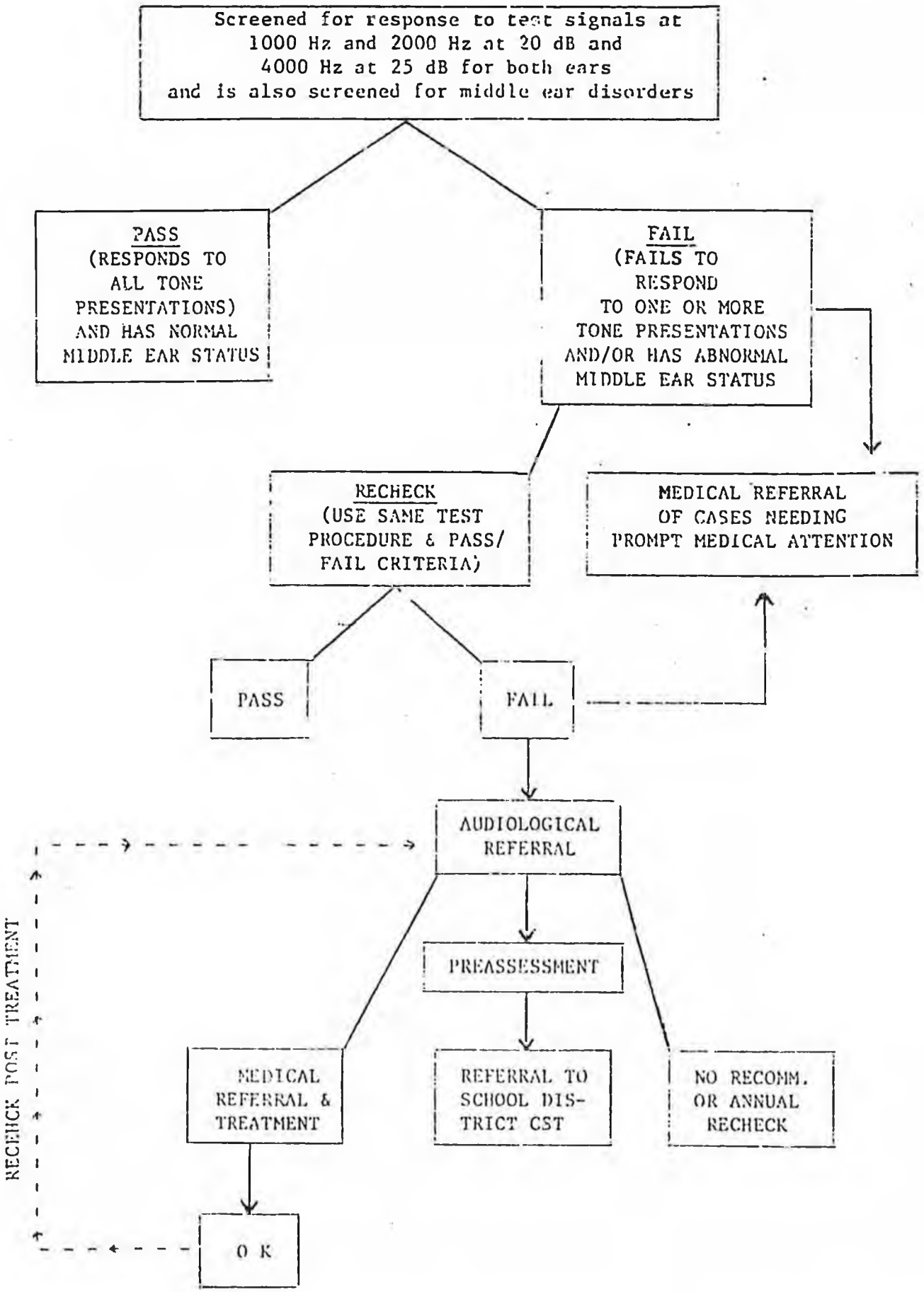
It is important that the audiologist be actively involved in all phases of the educational assessment. This involvement should include the provision of support and consultation to other team members regarding appropriate methods for testing hearing-impaired children, and interpretation of test results.

The needs of some hearing-impaired children can be expected to be more extensive and more complex than those of other hearing-impaired children; however, there is a minimum amount of information which should be collected from and about all children who have been identified as being in need of educational assessment. Therefore, the first task of the Child Study Team should be to collect the baseline information which will enable the team members to answer the following questions:

1. What, if any, support services should be provided for this child?

2. What, if any, changes in educational programming should be made for this child?

PURE TONE SCREENING FLOW CHART AND REFERRAL CRITERIA *



* See pamphlet "Audiometric Screening-Procedures and Forms" available through the Communicative Disorders Program, Division of Public Health for specific procedures.

4.0 RECORDKEEPING, REPORTING AND FORMS

A vital component of the hearing screening program is the recordkeeping and reporting process. The individual in each district who has been designated to coordinate hearing screening activities should also be responsible for recordkeeping and reporting as is stipulated below.

4.1 Confidentiality

Individual screening and testing records shall be confidential as required by district policy. The records shall be available to health agencies to assist in obtaining proper and necessary health and educational care.

4.2 The following forms should be used in the manner recommended below when conducting the hearing screening program.

4.2.1 Reporting observations

At the outset of each school year the information sheet Behavioral Characteristics of Hearing Impaired Children and the Student Observation Form should be distributed to each school in the district. The first sheet is meant to inform teachers of the typesof behavior exhibited in the classroom which might indicate a hearing disorder. The second form comes in duplicate and is used for referring those students to the individual responsible for screening. A second copy is to be kept by the teacher for her records. Samples of these forms are in Appendix A.

4.2.2 Recording daily screening activities

The form Hearing Screening Worksheet should be used by the screener to record the daily screening activities. This form comes in duplicate, one to be retained in the screener's file and one to be sent to the individual who will be doing the audiologic follow-up on screening failures. Data from these forms will be used in the Annual Hearing Screening Report submitted at the end of each school year. A sample of the Hearing Screening Worksheet is in Appendix B.

4.2.3 Recording hearing threshold test results

The audiogram currently being used by the Communicative Disorders Program, Department of Health & Social Services is recommended for recording threshold hearing acuity. This form comes in 5 copies. Use of this form and its distribution is detailed on the back of the fifth copy. A sample form is in Appendix C.

4.2.4 Parent Notification of Neded Audiological or Medical Referral

When as a result of threshold testing and/or nursing evaluation it is determined that a complete audiological or medical evaluation is needed the parents should be notified by mail, telephone or by parent conference. Use of the "Recommendations of Audiological Evaluation" form or "Recommendation of Medical Evaluation" form is recommended in urban areas. These letters inform the parent of the reason for the referral and have a "tear off" portion with which the audiologist or doctor can report findings back to the school. The form is in duplicate, one copy to be kept by the referring party. In rural areas notifications will be most effective through parent conference. See form samples in Apendix D.

4.2.4.1 High frequency loss

When high frequency hearing loss has been detected by the audiologic l evaluation (not by screening alone) and the extent of loss is such that it presents no significant problem with regard to classroom communication the parents must be notifie l through parent conference or by sending the form Parent Notification of High Frequency Hearing Loss. A sample of this form is in Appendix D.

4.2.5 Exam Results and Recommendations

When the results of medical and/or audiological evaluations are returned to the coordinator of hearing screening, these results should become part of the individuals school health record and certainly should be considered if a child study team is reviewing the child's educational status. Findings should be brought to the attention of the teacher for application in the classroom when necessary.

4.2.6 School Health Records

School health records will exist in varying form from district to district. Entry should be made in the health record whenever the child has failed screening and rescreening tests. The subsequent referral for medical and/or audiological evaluation should be traceable in the record.

4.2.7 Annual Report

During April or May of each year an annual report of hearing screening activities must be completed using the screeners copy of the Screening Worksheet, Parents Referral Form, Parents Notification of High Frequency Hearing Loss, the audiologic tests and medical evaluation as sources of input. A sample of the Annual Hearing Screening Report is included in Appendix E. A copy of this report should also be sent to the Central Office of

Communicative Disorders Program
3401 East 42nd Avenue
Anchorage, Alaska 99504

5.0 PERSONNEL AND TRAINING

5.1 PERSONNEL

State: Coordination and administration of hearing screening at a state level should be the responsibility of the Communicative Disorders Program, Department of Health & Social Services. The Communicative Disorders Program shall develop and conduct training programs, monitor compliance to standards, coordinate screening services performed by various agencies in the state, keep all state records and reports regarding hearing screening, and disseminate information about hearing screening.

Local: The implementation of hearing screening should be the responsibility of superintendent of the school district. The superintendent should designate the management or direction of the hearing screening program to a local health care provider such as a school nurse or public health nurse. This individual should be certified in hearing screening by the Communicative Disorders Program to assure that districts' standards and procedures for follow-up activities are known and followed.

Alaska school districts may employ or contract personnel for this purpose. The screening needs of some districts may be best served by establishing an agreement with the appropriate local public health nurse's office or a regional health agency. The supervisory consultative and clinical audiology services may be provided by the Communicative Disorders Program or on private contract. In managing the hearing screening program the local health care provider should perform the following duties:

a) Arrange a screening schedule and notify all involved.
b) Administer screenings and rescreenings.
c) Notify parents of referrals.
d) Follow-up on referrals.
e) Complete recordkeeping and reporting.

The local health care provider may arrange for approved training for other individuals such as teachers, aides, volunteers (to be known as screeners) to administer the hearing screenings and rescreenings. School districts should make an effort to employ reasonable permanent screeners; persons who understand that they carry screening responsibility over a period of time and thereby have an opportunity to accumulate knowledge and develop necessary skills.

5.2 *Proposed Training and Certification of Screening Aides

It is recommended that the Alaska Communicative Disorders Program develop the curriculum for a training program for hearing screening aides and that this program also establish certification and recertification procedures for such personnel. Including the use of a competency based test. A minimum of 15 hours of training, including practicum is suggested for new screening team members.

A minimum of seven hours refresher training should be provided by or under the direction of an audiologist. Training procedures for hearing screening should be designed to provide personnel with basic knowledge of hearing and its effect on learning and communication, and with technical skills adequate to perform the screening task properly. Training should ensure that screening personnel develop compentencies in:

1. Operation of the screening equipment.
2. Identification of improperly functioning equipment.
3. Instruction-giving.
4. Conditioning techniques.
5. Eliminating inappropriate cues.
6. Proper earphone placement.
7. Evaluating the reliability of responses.
8. Making pass/fail judgements.
9. Identifying the difficult-to-test child.
10. Follow-up procedures.
11. Accurate recording of data.

Additionally, training should include a competency based evaluation of the knowledge and skills acquired by the screening staff to ensure that staff members meet minimum competencies. Reevaluation should be done annually.

6.0 MATERIALS AND EQUIPMENT

Each local education agency should provide and make available for its hearing conservation program the following necessary equipment and materials:

6.1 Pure Tone Audiometers

The audiometric instrumental array shall be capable of performing at least the following procedures: hearing screening, pure tone air conduction threshold tests, bone conduction threshold tests and contralateral masking. It is recommended that effective masking procedure be utilized. All instruments should be calibrated to ANSI 1969 Standards.

6.2 Impedance Audiometers

Instruments for acoustic impedance/immitance screening shall have as a minimum the capability for tympanometry. Manufacturers specifications for equipment selected for use shall meet the recommendations for air pump system, air pressure range, probe tone frequency, frequency level or acoustic reflex eliciting tone. All instruments selected for use within the program will have the same measurement units. Desireable additional features are 1) the ability to test acoustic reflex and 2) pure tone threshold and screening capability.

6.3 Calibration

Audiometers shall be calibrated to current ANSI specifications initially, (ANSI-S3, 6-1969), and recalibrated as needed, at least annually. Daily listening checks shall be performed to determine that audiometers are grossly in calibration and that no defects exist in major components. First level calibration may be provided by the Communicative Disorders Program, Department of Health & Social Services. Contact this program for further information.

6.4 Equipment Costs and Vendors

Pure Tone Audiometers

BRAND	MDL	CAPABILITIES	PRICE	FOB	VENDOR
BLTONE	110	air, bone, narrow bnd masking, (plus case)*	875	CHGO	CORVEK*
MAICO	MA20	air, bone, white noise masking	690	DNVR	TRACOU** STICS
AUDTONE	AU1S	air, bone, white noise masking	585	DNVR	"

APPENDIX A

FINDING THE HARD-OF-HEARING CHILD

For Teachers & Nurses

1. OBSERVABLE BEHAVIORS

   (a) Continual inattention and lack of interest in general conversation, retardation or poor grades.

   (b) Failure to respond when called upon.

   (c) Getting directions wrong or not at all.

   (d) Constant mistakes in carrying out directions and in answering questions.

   (e) Repeatedly asking "What did you say?"

   (f) Bewildered expression when directions are being given to class.

   (g) Habitual turning of head to bring "best" ear nearer the speaker.

   (h) Speech symptoms - letter substitutions or omissions, poo voice quality.

   (i) Undue restlessness and evidence of strained nerves; weary and exhausted before day is half over.

   (j) Draws away from the group and shows a tendency to play alone or to become morose and resentful. avoids people.

2. MEDICAL HISTORY OF:

   (a) Ear disease, pain, discharge, operation, medical treatment.

   (b) Noises in the ear, such as roaring or buzzing.

   (c) Disease such as: meningitis, scarlet fever, measles, frequent or severe colds, or chronic mouth-breathers.

NOTE: Any cases in these categories should be reported to the school nurse for the annual hearing test.

STUDENT OBSERVATION REPORT

School_____ Teacher_____

Room_____Grade_____ School Year_____Semester_____

Purpose: To identify those students' whose behavior, reports, appearance, or records indicate a need for assistance or service.

DATE OBSERVED	STUDENT NAME	STATEMENT OF OBSERVED PROBLEM	FOLLOW-UP (to be completed by health screener)

This form will be returned to teacher when follow-up is completed, for teacher's information.

When form is returned, information on the students will have been placed on Students' Health Records by health screener.

APPENDIX B

= .assed
F = Failed
R = At Risk (Retest)

Mail Copy To REGIONAL [illegible] GIST

HEARING SCREENING WORKSHEET

NAME		Grade &	1st Screening				2nd Screening				Hearing		Date	Info
			Hearing		Immittance		Hearing		Immittance		Thres.		Ref. to	Hea
Last	First	Room	Date	P/F	Date	P/R/F	Date	P/F	Date	P/R/F	Date	COMMENTS	Parents	Rec

APPENDIX C

TESTING AGENCY:

ALASKA DEPARTMENT OF HEALTH AND SOCIAL SERVICES
COMMUNICATIVE DISORDERS PROGRAM

1-3 OEC	4 DELETE/ADD/CO	5 REGION	6-8 COMMUNITY	9-13 CLIENT NUMBER

NAME (LAST, FIRST, MIDDLE INITIAL) 14-34

Community of Residence/Parent's Name/Phone Number

SEX 39 — 1 M 2 F 3 Not Stated

RACE 40 — 1 WHITE 2 ALASKAN INDIAN 3 ESKIMO 4 ALEUT 5 MIXED NATIVE 6 BLACK 7 OTHER 8 NOT STATED

REFERRAL SOURCE

D.O.B. 41-46 — Mo. / Day / Year

COMMUNITY OF SCHOOL

CODE 47-49

GRADE 50-51

TESTER 52-54

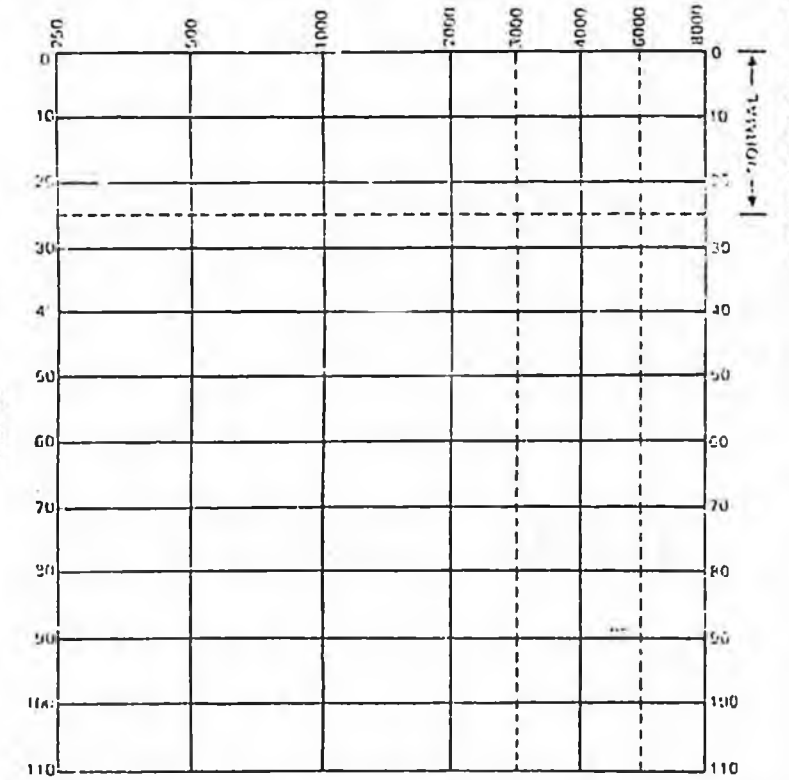
DISCIPLINE 55 — 1 SPEECH & HEARING AIDE 2 AUDIOLOGIST 3 PHN 4 OTHER

TESTING SITE 56 — 1 FIELD 2 SOUNDPROOF ROOM

DATE OF AUDIOGRAM 57-62 — Mo / Day / Yr

TEST VALIDITY 63 — 1 GOOD 2 FAIR 3 POOR

RELEASE OF INFORMATION OBTAINED 64 — 1 YES 2 NO



MASKING LEVELS

A/C								
B/C								

TO OBTAIN

SPEECH AUDIOMETRY

	SRT	Mask	PB	Mask	SL	MCL	TOL.	STENGER
Right			%					
Left			%					
BF			%			____ % AT ____ dB		

AUDIOGRAM KEY	RED R	BLUE L	NO RESPONSE R	NO RESPONSE L
Air Conduction	O—O	X—X	↓	↓
Bone Conduction	[— [	] —]	↓	↓

I authorize the release of the results of this evaluation concerning the above person to the agencies circled below and the use of this information in the State Department of Health and Social Services records.

Date _____ Signature _____

FOR AUDIOLOGIST USE ONLY

EAR	TYPE	LEVEL	MISC	HEARING AID		IMPEDANCE Type	IMPEDANCE Reflex
R	CMSFI 65	NBLMSP 66	67	EBGA 68	GPF 69	70-71	72
L	CMSFI 73	NBLMSP 74	75	EBGA 76	GPF 77	78-79	80

RELEVANT HISTORY & COMMENTS

81-86 RELEASE INFORMATION TO

A Community Health Aide
B Public Health Nurse
C Service Unit Hospital
D Private M.D. _____
E School _____
F ANSIC - ENT
G Com. Dis. Program/ Soc. Family Health
H Div of Voc. Rehab
I Other _____

87-92 AUDIOLOGIC RECOMMENDATIONS

A Noise Protection
B H.A. Eval.
C Speech Eval
D Educational Assessment
E Rehab Counselling
F Preferential Seating
G Developmental Eval
H Special Tests
I Repeat Audio

93-95 Mo / Yr

97-99 MEDICAL REFERRAL TO (Circle no more than three letters.)

A Community Health Aide
B Public Health Nurse
C Service Unit Hospital
D ENT - IHS
E Private M.D.
F Private ENT

100-120 OTHER REFERRAL TO: (Circle up to 14 referrals.)

A Handicapped Childrens Program
B Office of Vocational Rehabil.
C Child Development Services
D Veterans Administration
E Medicaid
F E P S D T
G AK State Deaf Program
H Infant Stim Program
I AK Treatment Center
J ACCA
K Head Start
L School
M Service Club
N Communicative Disorders Progm

121-122 PRE OP - POST OP EVALUATIONS (Circle only one number per ear.)

106 R	107 L	
1	1	Pre Op < 1 week prior
2	2	Post Op < 1 year
3	3	Post Op 1 to 3 years
4	4	Post Op > 3 Years

FORM 06-1230 REV. 09/78

APPENDIX D

AUDIOLOGICAL/MEDICAL REFERRAL

____________________________________ School District

(FORM FOR URBAN USE ONLY)

As a result of hearing screening tests at school we believe your child should have:

☐ a complete hearing examination by an audiologist

____

☐ a medical examination

____

Please give this form to the person who examines your child to complete and have them return it to school.

- -

AUDIOLOGY EXAMINATION

(Fill in form or attach copy of audiogram)

HEARING LEVELS

		250	500	1000	2000	4000	8000
R	air / bone						
L	air / bone						

IMPEDANCE/IMMITTANCE

EAR	TYPE	REFLEX
R		
L		

FINDINGS: Right ____________________ Left ____________________

RECOMMENDATIONS: (Circle letter)

A. Noise protection	E. Rehab. Counseling	I. Repeat audio
B. Hearing aid eval	F. Preferntl seating	Date ________
C. Speech eval	G. Developmtl eval	J. Other ________
D. Educ. assessment	H. Special tests	________

Audiologist ____________________ RETURN TO:

Address ____________________

Date ____________________

- -

PHYSICIANS EXAMINATION

EARS

Canals Right ____________ T.M. & Middle Ear Right ____________

Left ____________ Left ____________

NOSE

THROAT

Examiner ____________________ RETURN TO:

Address ____________________

Date ____________________

PARENT NOTIFICATION OF HIGH FREQUENCY HEARING LOSS

_____
SCHOOL DISTRICT

To the parents of:_____ Date of Birth_____

School:_____ Date_____

Your child appears to have some degree of high tone hearing loss in_____ear(s). This type of hearing loss is commonly caused by noise. Some of these loud sounds are gunshots, loud mechanical noises such as; aircraft. snow machines, high volume rock music, etc. Continued exposure to loud noises can further decrease hearing ability.

Ears may be protected from some of these loud sounds by using ear plugs or wearing ear muffs. You may wish to discuss this problem and the use of hearing protection devices with the school nurse or Public Health Nurse.

We would recommend that your child have a hearing test each year to insure that there has been no change in hearing. This may be done at the school by the school nurse.

Health Screener:_____

School:_____

APPENDIX E

PLEASE SUBMIT AFTER REFERRALS ARE COMPLETED, BUT PRIOR TO SUMMER VACATION

CENTRAL OFFICE
3401 East 42nd Avenue
Anchorage, Alaska 99504

ANNUAL HEARING SCREENING REPORT

SCHOOL _____ DISTRICT _____ TESTER _____ DISCIPLINE _____

ADDRESS _____ CITY _____ AVERAGE ENROLLMENT _____

GRADE	Number Screened		#of Failures on Each Test After Screening		Totl Refrd For Med. Evaluation	Received Medical Evaluation	Medical Ref. Not Completed	Total Refrd for Audiology	Received Audiology Evaluation	Audiology Ref. Not Yet Completed
	Pure Tone	Impedance	Pure Tone	Impedance						
PreSch										
Sp. Ed.										
K										
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
TOTAL										

Please use reverse side for comments about any phase of your hearing program. They are always welcome.
Shaded areas are recommended for annual screening.

APPENDIX

APPENDIX F

The following are position descriptions of principal parties who should be involved in the establishment and management of a hearing conservation program including screening efforts. It should be noted that the position of hearing screening aide is not an existing entity at the time of this writing but is proposed by the Vision-Hearing Screening Committee of the Governor's Council for the Handicapped and Gifted. The hearing screening aide position may also assume responsibility for vision screening in the schools thus becoming a Vision-Hearing Screening Aide.

A goal recommended by that committee was that within a five year period that screening aides be providing uniform screening coverage in schools in all areas of Alaska. The accomplishment of this goal will be dependent upon administrative action and fiscal resources.

A. Audiologist

The audiologist shall supervise screening programs, provide diagnostic evaluation of pupils having hearing impairments, and participate in planning and providing special education and/or rehabilitation programs and services for them. In order to perform these duties effectively the audiologist must:

Observe the policies and procedures established by these guidelines including use of standard forms and reporting procedures.

Possess knowledge in the normal development of language and speech and the nature and causes of hearing impairments.

Possess a mastery of diagnostic skills, procedures, techniques, and instrumentation in order to assess and analyze the nature and severity of hearing impairments.

Possess an understanding and mastery of management techniques in providing services and supervising paraprofessionals.

Be effective in working in an interdisciplinary approach.

It is required that the audiologist possess a Certificate of Clinical Competence in Audiology or its equivalent.

B. Hearing Screening Aide (Proposed)

A hearing screening aide shall provide hearing screening and other specific activities as assigned by a supervising audiologist. The major function of the hearing screening aide is to conduct pure tone air conduction screening and impedance screening assessments. The hearing screening aide may also provide pure tone threshold evaluations if done under the supervision of an audiologist. It should be noted that a hearing screening aide shall not interpret test findings or counsel clients regarding the implications of any hearing loss identified except as directed to do so by the supervising audiologist.

It is recommended that the hearing screening aide be certified by the Division of Public Health as having completed the training course required by the Department of Health & Social Services. This certification should be renewed every three years.

The primary duties of the hearing screening aide shall be:

To administer individual hearing screening assessments to pupils in assigned schools.

Under the supervision of an audiologist, to assist in administering pure tone air conduction threshold assessments to all pupils who do not pass the screening tests.

Refer any questions from a teacher, nurse, parent, or administrator pertaining to specific hearing results to the supervising audiologist.

Assume the responsibility for records and reports as locally determined and in compliance with the guidelines presented in Section 4.

When appropriate, to discuss with the supervising audiologist the testing situation (noise encountered, disturbances, etc.) and test procedures (frequencies involved, hearing level, etc.) for a pupil. Diagnostic and prognostic interpretations are the responsibility of the supervising audiologist.

To perform only the duties of a hearing screening aide as outlined by these instructions and such other duties not in conflict with these standards as may be established by the local school district.

C. Other Health Care Personnel

Physicians Assistants, Speech Pathologists, Nurses, and Nurse Practitioners who have completed the necessary training requirements and adhere to the guidelines presented in this document may also provide hearing testing services in the schools to aid in their primary management of the hearing impaired. Services provided in areas of primary care other than hearing testing should be in compliance with the standards for these positions.

APPENDIX G

Majority Opinion:

We favor impetance screening because:

1. It is the most reliable way to identify children with otitis media and monitor this condition to see if referral to a physician is necessary. Pure-tone screening alone frequently misses cases needing identification and treatment.

2. In addition to the medical implications, the educational and communicative implications to this type of hearing loss in children needs to be considered. Children, especially preschool and early elementary age, who are identified through impedance screening and subsequent impedance rechecks to have chronic, reoccuring middle ear pathology frequently can be treated successfully. Many of these children, especially after P.E. tubes have been inserted, show considerable academic/language growth. Parents and teachers of these children often notice immediate improvement in attention span, articulation, receptive and expressive language and the auditory skills needed to succeed in school.

Submitted by Anne Rogers,

VISION-HEARING SCREENING COMMITTEE

Minority report on the issue of mandatory impedance/ immittance screening for all preschoolers, K, 1, 2 and 3rd grade:

Requirement of use of this screening technique statewide at this point in time is premature when viewed from the standpoint of documented medical and educational research, from the standpoint of medical management and from the standpoint of technologic and manpower requirements to accomplish this task.

Dr. David Spence
Mr. Tom Buckner

PLEASE NOTE: THE PRECEDING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT.