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C O M M E N T S

## INCORPORATING AN AUTOMATED VISION SCREENING DEVICE INTO A PRESCHOOL SCREENING PROGRAM

*Written By: Sam Corrado, Ed.D., Child Find Specialist - Screening*

### Review

Vision problems are one of the most common conditions of childhood; however, few children receive complete eye examinations by pediatric vision specialists at recommended intervals.

The National Eye Institute reports that vision problems are associated with developmental delays. The earlier a vision problem is diagnosed and corrected, the less negative impact it will have on a child's development (American Optometric Association).

### Vision Screening

The Florida Diagnostic and Learning Resources System (FDLRS)/South with the assistance of the University of Miami's Mailman Center for Child Development have been conducting preschool screenings since 1980. These screenings have been done on site at the various preschools and

day care centers in Miami-Dade County and also at FDLRS/South with the children referred for an evaluation. At FDLRS/South the vision screenings have been conducted by members of the diagnostic staff.

In previous years, the vision screening was conducted using a House-Apple-Umbrella Symbol Chart. This eye chart method of screening is time consuming and is dependent on the child's behavior (i.e., cooperation, attention, activity level, etc.) for reliable and valid results. Eye chart testing of preschoolers has problems with

specificity (false positives) and sensitivity (false negatives) according to the Orinda Longitudinal Study of Myopia.

This past year (7-03 to 6-04) the Welch Allyn SureSight Vision Screener, a portable autorefractor, was used for the vision screenings. The SureSight Screener gets to the root of the eye's optics problem (refraction) rather than its manifestation (visual acuity). The SureSight screener does not measure visual acuity but automatically screens for near- and farsightedness (myopia/hypero

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*FDLRS/South Associate Center  
Staff Member Performing a Vision Screening*

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# VISION SCREENING DEVICE CONTINUED ...

By *Sam Corrado, Ed.D.*  
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pia), astigmatism (asymmetrical focus), and anisometropia (unequal power between the eyes) which could lead to lazy eye (amblyopia). This autorefractor addresses the problems associated with the eye chart acuity screenings in that it does not require a response from the child. Minimal child interaction is required and the test takes about five seconds to screen each eye. A study conducted by the National Eye Institute (NEI) points out the SureSight Vision Screener as one of the best performing instruments out of a total of eleven instruments studied.

In the fiscal year 2001-2002 FDLRS/South screened a total of 2,057 children with 98 children being recommended for a complete eye examination. In 2002-2003 there were 85 children recommended for an eye examination out of 2,289 total children screened. This past year, while using the SureSight Vision Screener, there were 196 eye examination referrals out of a total of 2,121 children screened. This is a significant increase in the amount of referrals made when using the Welch Allyn Suresight Vision Screener as compared to the use of the Eye Chart during the previous two years.

## Procedure and Results

A follow-up procedure was used to gather data on the reliability of the SureSight Screener. This procedure involved the preschools reporting results of eye examinations for the children that failed the vision screening at their school. Data for the children screened at FDLRS/South was obtained directly from the eye examination report provided by the vision professional who conducted the evaluation. Data for 88 children has been collected to this point. Sixty-six children required some type of vision intervention that included surgery, glasses, or a vision concern (refractive error) that needed to be followed-up in the future. Twenty-two children did not have a vision problem (False Positive). A Hit Rate of 75 % was calculated.

## Conclusion

The Welch Allyn SureSight Vision Screener is a positive addition to a preschool screening program. The number of referrals increased by approximately 100% and the Hit Rate for true positives was 75%. This automated vision screener is also very useful for handicapped children with developmental delays who cannot respond to the typical eye chart screening. No response is required from the child and measures of near- and farsightedness, astigmatism, and difference between the powers of both eyes are obtained in a matter of seconds.

*This article was shortened due to space limitations. The entire article is available on the CHRIS website, [www.chris.miami.edu](http://www.chris.miami.edu).*



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**CHRIS Comments**  
Newsletter Schedule for 2004-2005  
August, November, February, May

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## Introducing:

### CHRIS Data Facilitators

As of September 2004, the role of CHRIS Database Administrator (DBA) will be replaced by CHRIS Data Facilitator. Data facilitators will serve as the primary contact for CHRIS users at the FDLRS centers and will serve as center liaisons to the CHRIS Help Desk. Data facilitators will assume many of the responsibilities currently handled by CHRIS DBAs in addition to several new responsibilities. For more information on data facilitator qualifications and responsibilities, please see the CHRIS Website ([www.chris.miami.edu](http://www.chris.miami.edu)).



### CHRIS Data Facilitator Training - Save the Date

The first CHRIS Data Facilitator training will be held at the Embassy Suites Orlando Airport, September 9-10, 2004. For more information, please call the CHRIS Help Desk at 800-231-5747.

## Register Online for Data Facilitator Training!



Visit the CHRIS Website at [www.chris.miami.edu](http://www.chris.miami.edu)

### TAWG Openings



The CHRIS Technical Assistance Work Group (TAWG) Advisory Board is currently looking for new members. For more information on TAWG and how to join, please see the TAWG Information Page on the CHRIS website ([www.chris.miami.edu/joinTAWG.htm](http://www.chris.miami.edu/joinTAWG.htm)).

## Record Transfer Program Update

In the May 2004 CHRIS *Comments* newsletter we asked for your input on a record transfer program. All input was reviewed at the June 2004 meeting of the Technical Assistance Work Group (TAWG) Advisory Board. The following decisions were made:

- Users with access to the county entered in the County of Residence field will be allowed to view and edit the record.
- Users with access to the county entered in the County of Service field will be allowed to view but not edit the record if the county is different from the County of Residence.
- Once it has been confirmed that the child moved, the record can be released to the new center by changing the County of Residence.
- When transferring a child, the county the child is moving from should end the timeline by selecting "Moved out of service area" as the reason in the End Timeline event. A new timeline should be initiated in the county the child moved to.
- TAWG will design reports to summarize the transfer process.

## How often do you check your data backup?



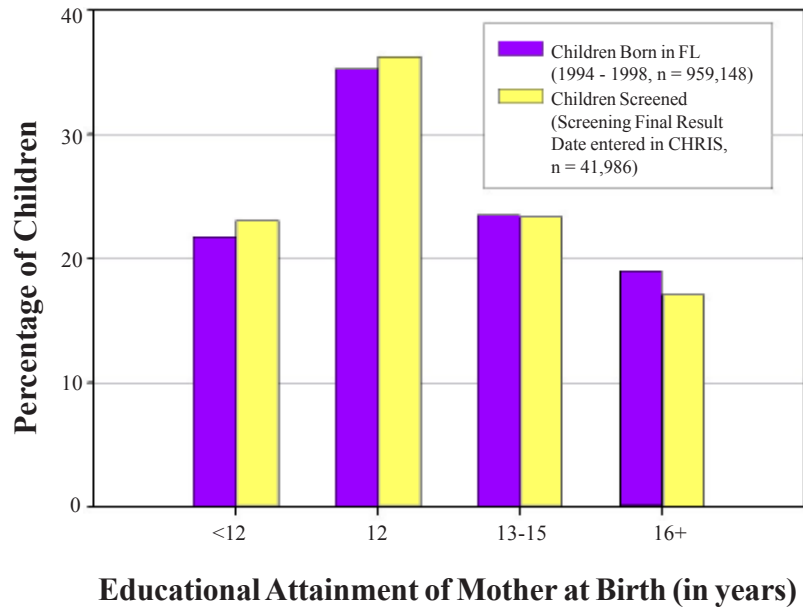
Please remember to check your daily, weekly, and monthly backups. Verify that the storage media for each weekday is being rotated each day. Also, make sure that data are being copied onto the tape or CD. If you do not know how to view or recover the data on your backup media, please contact your local technician for assistance. To prevent data loss, it is very important to know how to use your backup systems.



## RESEARCH REPORT

Parental education level is an important factor in the early identification of children with disabilities. While low parental education is a risk factor for most disabilities, highly educated parents are more likely to identify delays in their children and seek services. The data presented demonstrate that Child Find efforts in Florida have resulted in a proportionately greater number of screenings for children of less educated parents. Such efforts are essential to the early identification of the children most likely to have disabilities.

### Comparison of Maternal Educational Attainment for Preschool Children Screened Versus All Children Born in Florida



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