Disability Issues

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CHEC Steps Up Outreach Efforts

The CommonHealth Employment Connection (CHEC) has opened their new office at 2 Boylston Street. Boston. One of the activities of the CHEC office is to provide information to people with disabilities about access to health insurance and health services with a focus on MassHealth/Common Health, a health insurance plan for people with disabilities. It is available to individuals who are working and to those who are not, regardless of income or assets.

The CHEC staff includes a director and two health and employability coordinators. Each of them has special expertise in the area of health insurance for people with disabilities as it relates to employment. Since opening, the CHEC staff has been busy meeting with state and community agency personnel to reaffirm the benefits of employment for our disabled population. They have presented the benefits of MassHealth/ CommonHealth for people with disabilities who are employed or seeking employment to the Massachusetts Rehabilitation Commission, Independent Living Centers, and others. To schedule a presentation for your organization, please call Linn Morrill at (617) 451-7162 or Bernard Bonsra at (617) 451-7052.

CHEC also staffs an information and referral service Monday through Friday from 9 am to 5 pm to answer questions from individuals, agencies and employers. The toll free number is 1-866-698-6901 (voice) or 1-866-698-6900 (TTY).

Frequently Asked Questions about the MassHealth/ **CommonHealth Insurance** Program

In fielding calls from the information and referral line and answering questions while making presentations to various groups, the CHEC health and employability coordinators have compiled a list of the most frequentlyasked questions about the MassHealth/CommonHealth insurance program.

Q. Who is eligible for MassHealth/ CommonHealth?

A. MassHealth/CommonHealth offers healthcare benefits to the following groups:

Adults with disabilities (age 18 - 64 who are working or unemployed; and age 65 and older working at least 40 hours per month) Children with disabilities.

Q. Is there an asset or income limit for MassHealth/CommonHealth?

A. There are no income limitations for MassHealth/CommonHealth. Premiums may be applicable if income is over a certain level based upon Federal Poverty Guidelines. There is no asset limit.

Q. Do family members also qualify for MassHealth/CommonHealth?

A. No. MassHealth/CommonHealth does not provide family coverage. It is a specific coverage type for adults and children with disabilities. The Division of Medical Assistance (DMA) will determine if other family members are eligible for MassHealth when a

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Hospital News

A Refreshing **Opportunity For** Spaulding **Patients**

Fleeing to the lakes or the seashore to escape the heat was the choice for many this past summer, but for some, those with physical disabilities that escape wasn't always possible.

Not at Spaulding Rehabilitation Hospital, however, where the staff found a way for patients to enjoy the water activities afforded by the Charles River- which laps at Spaulding's doors- and, at the same time, make progress in their rehabilitation and re-entry into the world outside Spaulding.

Two years ago, the hospital began a pilot program in collaboration with AccessSport America, a nonprofit organization that provides instruction and

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Fall 2002

From the Center

J. Archer O'Reilly III Editor

The time is rapidly approaching when the Information Center for Individuals with Disabilities will cease to produce *Disability Issues*. After twenty-two years, this is the next to last edition of this newsletter as the exclusive product of the Center. This does not mean that either the Information Center or *Disability Issues* are going away. Rather it signals a positive movement towards firmer ground for both.

Next year, **Disability Issues** will be, I am confident, better than ever and represent an even wider range of voices than has been possible in recent years. With the cooperation of our new partners, Spaulding Rehabilitation Hospital and the University of Massachusetts Medical School, it will continue to provide timely and useful information on disability, without charge, for the entire community. I hope you will continue to read and enjoy the newsletter. However, if for some reason you would prefer that we not transfer your name and address to the new publishers, please write or e-mail us before the end of this year.

In the Summer edition we wrote about AAA Guidebooks for Travelers with Disabilities. A number of readers have told us that they have had trouble finding these books at their local AAA office.

AAA informs us that these guides are not yet in all offices. However, they may be ordered from the publication center at 1-877-AAA-BOOKS or 1-877-222-2665. The more people, particularly AAA members, ask for these books - the sooner they will be generally available and the more likely AAA is to expand the number of destinations covered by accessible guides.

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Disability Issues is available, without charge, to anyone who finds it useful and interesting. It is available in regular, large-print, and e-mail versions.

You may request a subscription by writing us at: Information Center P.O. Box 750119 Arlington Heights, MA 02475-0119 or by e-mail at: **infoctr@gis.net.**

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President: Nancy C. Schock

Editor: J. Archer O'Reilly III

Citizens' Group Calls for Halt to Hazardous Chemicals

A group of concerned Boston residents, some of them with pets in tow, gathered in front of the Metropolitan District Commission office building recently to present 1,000 signed postcards to MDC Commissioner David Balfour. The cards call for an end to the MDC's practice of using toxic pesticides and sewage sludge to maintain the Southwest Corridor Park, a 52-acre tract of land extending from Back Bay through Roxbury to Forest Hills.

The Neighborhood Pesticide Action Committee (NPAC), a group of volunteers based in Jamaica Plain, began a campaign this summer to educate community members about the environmental and health impacts of the pesticides after their own research revealed that four of the chemicals used in the park are classified as highly or moderately toxic by the EPA or have effects on humans and their pets that have not been sufficiently studied.

According to Virginia Pratt, a Jamaica Plain resident and founding member of NPAC, the risks of pesticide exposure for children are particularly worrisome in light of the recently passed Children and Families Pesticide Protection Act. This state law prohibits the use of certain potentially harmful pesticides, including some of those now used on the Corridor, on the grounds of schools, daycare centers, and other buildings that house children. This law does not apply to parks, however, and a survey conducted by NPAC of the area surrounding the SW Corridor Park has found that 19 schools and daycare centers are located within one or two blocks of the site. "We want our kids' parks to be as safe as their schools are required to be," Pratt said.

Responding to Vision Loss Part 4: Keeping Mentally Alive

by Richard Landau

Even if you are not into high tech, there is still much the visually impaired person can do to keep in contact with others and the world of ideas.

For example, if you have some useful vision, and most blind people do, you might find a closed-circuit television reader a big help. These are devices that are easy to use and that blow up printed text onto a television monitor screen with very great enlargement. Some of these devices are complete units and others are designed to run through a regular television set. Not only do they enlarge type, but in many cases they will also reverse the image if it helps to see the letters white on a black background. Sometimes your state commission for the blind may help in meeting the cost of this equipment, but at the moment many states are in a budget crisis and so that may no longer be possible. In some cases, local service organizations such as the Lions Club, may be able to help.

In addition, any legally blind person can enjoy access to the vast audio tape collection of the Library of Congress completely without charge. Books on tape are distributed on loan through designated libraries in every state (in Massachusetts, that's the Perkins School Library, Watertown (1-800-852-3133)). Not only can the blind borrow books on tape, but also many current periodicals. For example you can subscribe without charge to the New York Times Book Review section, which arrives weekly and is read beautifully. The Library of Congress will provide you with a special 4-track tape player for these tapes, all at no cost. The book tapes are mailed to you in hard plastic containers and can be returned by mail free of charge. It is a wonderful service that every blind person should know about.

The titles available are contemporary and classical works of fiction and nonfiction. For those with advanced scholarly or academic interests, there is also a collection of Reading for the Blind & Dyslexic in Princeton, New Jersey (1-800-221-4792). There is a relatively modest membership fee required for access to the collection. I have found that the audio books available from this service are technically inferior to those from the Library of Congress. Some of the tapes have unexplained blank segments, and the readers often are not sufficiently skilled to be reading the material before them. But sometimes for that esoteric volume of history or philosophy, this may be the only source.

No series of articles of this sort would be complete without some reference to Braille. Braille is a system of raised dots that a trained person can read with his fingertips. Books in Braille are also available from the Library of Congress for those sufficiently skilled to use them. There are people of all ages who have productively studied Braille and used it to their advantage. Indeed, learning the dot configurations for the letters and punctuation is fairly easy. What is difficult for many is developing the sensitivity in the fingertips to be able to distinguish and differentiate the dot patterns.

Those of us who came to blindness as adults are practiced in bringing verbal information in through our eyes and ears. Touch was used mostly for sensing texture, shape, and temperature. Bringing in verbal information tactually represents a major challenge that some can manage with skill and others find forbidding. For those interested in learning Braille, there are skilled teachers in Massachusetts at the Carroll Center. The office for the blind in your state should be able to give you information on classes in your area. Some may prefer to try it by correspondence course, such as is offered without charge by the Hadley School in Illinois (1-800-323-4238).

In the course of this series of four articles I have written about adaptive equipment and services, special programs, and other ways of dealing with blindness. My fundamental aim has been to suggest that it is possible for many blind persons to function independently in a number of ways and to stay connected to the world of people and ideas.

Working against that feeling of independence are the folks who cannot be bothered to stop their Ford Explorers while you are tapping your white cane deep into a crosswalk, or the arrogant folks who insist on riding their bicycles on the sidewalks and shouting at you to get out of their way. (*No, I am not making this up.*)

But people like this are easily outnumbered by the kind individuals, often unknown to us, who step out of the shadows at just the right moment to say hello or to offer a helping hand when it is most needed, only to steal away silently when they have done their act of kindness.

These are the righteous.

This concludes this series of articles on Responding to Vision Loss by reader and Lexington resident, Richard Landeau.

The editor thanks Richard for his contribution and asks other readers with personal accounts of adapting to a disability to consider following his helpful example.

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Ed Note: The following article is reprinted from the August/September issue of **AccessLetter**, the newsletter of the Cambridge (Massachusetts) Commission for Persons with Disabilities. Due to the disabling potential of violence and the increased vulnerability of persons with disabilities to violence, the Commission found this subject of special concern to its constituents.

Violence and Disability

by Bet MacArthur, Chair

Many people become disabled through acts of violence, and people with disabilities are more frequently the objects of violence than people without disabilities. The Cambridge Commission for Persons with Disabilities is taking action to raise awareness among the media and the public to recognize the extreme cost to personal and community life that can be attributed to society's lack of disability awareness.

People with Disabilities as Targets of Violence

Violence may be directed at people with disabilities for two reasons. First, aggression may be triggered by fear, hatred or pity of the disabled person's perceived vulnerability or needs, or by the misguided impulse to relieve the person from a "painful existence" and/or others from care of the disabled person. The second reason is a misinterpretation of aberrant behavior that results in an exaggerated protective or defensive response against a challenge from a disabled person. In either case, violence or lethal force are directed toward people who have been objectified and devalued by our culture.

While most violence against people with disabilities is under-reported to authorities and does not get media coverage, a few sensational cases make the headlines. A recent example is the mother in the South who shot and killed her two adult sons who had Huntington's disease.

By interpreting her emotional state — brought on by anguish over their illness and disability — as inevitable, the media lead the public to respond to this cruel murder with no analysis or critique of the disability stereotypes and fears it reinforces.

It is also not uncommon for the killing of a developmentally disabled child by the father or male friend of the mother, to be characterized in the news as "understandable." It is not speculation to view such murders as culturally-influenced, culturally selfcentered, and genocidal.

Disability That Results from Violence

Alongside the vulnerability of people with disabilities to prejudice and violence, many people become disabled through violence and acts of aggression. War, domestic violence, and drunk driving are among the major long-term contributors to emerging disability. In recent years we have seen some new forms of violence. Young people in Colorado sustained injuries that resulted in disabilities from the Columbine school shootings. Inner-city youth have experienced a growing rate of spinal cord injury and disability due to the use of precise spinal shootings as a form of gang retaliation. Many people have become disabled through recent acts of terrorism.

Out of its concern about the links between disability, violence and abuse, the Commission formed an ad hoc committee to do some research and national networking on these issues. Board member David Peterson has developed and maintains a list of resources on the web that address violence, disability and abuse (see below).

We welcome your participation and voice on this topic, so please email the Commission with your comments at **cthompson@ci.cambridge.ma.us**.

Resources

Websites on Violence & Disability

by David Peterson

1) The Office for Victims of Crime (OVC) is part of the U.S. Department of Justice. Their searchable website provides information and/or links to US Government information and resources as well as to some private resources: www.ojp. usdoj.gov/ovc/. The OVC's National Victim Assistance Academy (NVAA) is a universitybased course of study (presented at various university campuses) in victim assistance and victimology. The course's textbook is available online; the section "Responding to Victims with Disabilities" discusses Disability and Violence: www.ojp.usdoj. gov/ovc/assist/nvaa/supp/tch21-12.htm

2) Minnesota Center Against Violence and Abuse

(MINCAVA) maintains a periodically updated list of online resources about Disability and Violence: **www.mincava. umn.edu/vdisab.asp**

3) International Coalition on Abuse and Disability

Listserv (ICAD-L) is a place to network with others on the topic of abuse and disability. List members include people with disabilities, researchers, service providers, and others concerned about violence as it affects people with disabilities. You can sign up and/or read previous ICAD-L messages, via links on the ICAD homepage: www.quasar. ualberta.ca/ddc/abuse/ index.html

4) The Communities Against Violence Network (CAVNET) website is a searchable and browsable source of information about violence against several target groups, including persons with disabilities: **www.cavnet 2.org/.** CAVNET's document "An Epidemic of Violence: Crime Against People with Disabilities" provides a good overview: **www. cavnet2.org/details.cfm? DocID=2487&**

5) The National Organization

for Victim Assistance (NOVA) is an organization of victims, survivors, and related professionals in the victim-rights movement. NOVA promotes national advocacy, services to victims, and assistance to professionals:

www.try-nova.org. NOVA (along with the Office for Victims of Crime) has produced a very thorough bulletin, "Working with Victims of Crime with Disabilities", which is available online: www.try-nova.org/ Victims/disable.html. (follow the link at the bottom of each page to view all 12 sections of the bulletin — about 30 printed pages — in sequence)

6) "Abuse and Women with Disabilities"

This 1998 report includes prevalence numbers, possible interventions, and recommendations. It covers a variety of disabilities. The report is part of the Violence against Women Online Resources from the University of Minnesota: www.vaw.umn.edu/final documents/Vawnet/disab.htm

7) The DRM WebWatcher: Abuse of People with Disabilities—this is a list of further links on the subject, focusing on issues of women, domestic violence, sexual abuse, child abuse, developmental disabilities: www.disability resources.org/ABUSE.html

David Peterson is Secretary of the Cambridge Commission for Persons with Disabilities.

CHEC Steps Up

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separate application is submitted.

Q. Can a MassHealth/ CommonHealth member work?

A. Yes! More than 50% of adult MassHealth/CommonHealth members are employed. People with disabilities can pursue employment without fear of losing their Mass Health/CommonHealth health coverage. MassHealth/Common Health can provide full coverage or supplement the employer-sponsored insurance. Employment at the time of MassHealth/CommonHealth application avoids the one-time deductible or "spend down" required of persons who are not working.

Q. What are the MassHealth/ CommonHealth benefits?

A. Each person's situation is unique. For those who are eligible, the benefits of the MassHealth/ CommonHealth insurance plan include the following:

Personal Care Assistance (PCA) services

Hospital and medical expenses
Pharmacy expenses

Durable medical equipment

 Transportation to medical appointments

□ MassHealth/CommonHealth provides the same benefits as Mass Health Standard except for long-term hospital/nursing facility care.

Q. How is someone determined disabled?

A. Individuals who are determined totally disabled by Social Security standards are presumptively eligible for MassHealth/CommonHealth. Other applicants' status is determined based upon record reviews by Disability Evaluation Services. In some cases a medical exam is required.

Q. What is the application process?

A. Applications (Medical Benefits Request Forms) are available from MassHealth Customer Services or can be downloaded from the DMA web site at <u>www.state.ma.us/dma</u>. Language interpretation and application assistance are available at MassHealth Enrollment Centers. To find the one nearest you, call 1-888-665-9993.

Applicants must respond, "Yes" to the disability question and complete "Supplement B: Injury, Illness or Disability Questions." The completed application with all necessary documentation attached must be mailed to the MassHealth Central Processing Unit.

Q. How long does the eligibility process take?

A. DMA notifies each applicant within 10 working days by mail of eligibility status (approved, rejected or incomplete). Over 90% of applicants are approved for MassHealth/ CommonHealth. Most denials are due to failure to provide medical records or authorizations, not appearing for medical exams or failing to document income.

 $\ensuremath{\boldsymbol{Q}}\xspace$. Is there a cost?

A. Individuals at or between 133% and 150% of the Federal Poverty Level pay no premium. (The dollar amount of the Federal Poverty Level varies according to family size.) Members above 150% of the Federal Poverty Level pay a monthly premium based upon family size, income and whether the applicant has other health insurance. Members with disabilities and below 133% of the level are eligible for Standard coverage.

The CHEC health and employability coordinators are happy to answer any questions about the MassHealth /CommonHealth insurance plan as it relates to employment through the toll-free telephone numbers, 1-866-698-6901 or 1-866-698-6900 (TTY). You are also invited to contact CHEC through their website, **www.masschec.org.**

CHEC is collaboration between the Massachusetts Division of Medical Assistance and the University of Massachusetts Medical School's Center for Health Policy and Research.

Assistive Technologies for Prepress Workers

by Stephen Beals

The Americans with Disabilities Act requires employers to make reasonable accommodation to their employees' handicaps. In the graphic arts, today's high technology offers a range of products that can be quite helpful.

In this article, we note some of the technologies that are helping disabled persons make a living in the graphic arts and fine arts. We should point out, though, that technology is only part of the story. The people we interviewed have also fought bias and obstacles that have required determination and creativity to overcome.

U.S. law. The Americans with Disabilities Act mandates that employers make reasonable accommodations and modifications for persons with disabilities. The term "reasonable," according to representatives of the ADA we spoke to, is meant to allow some flexibility in administering and enforcing the guidelines. Disability advocates often complain that the enforcement is lax, while employer groups claim that the opposite is true. The fact that only a very small percentage of complaints actually reach the litigation stage may be evidence that the law works fairly well for most people with disabilities without jeopardizing employers.

Tech support. Today, many disabled artists are getting help from their computers to help level the playing field. In fact, many of the clients that use the services of some of the graphic artists we talked to are not even aware their service provider has a handicap of any kind. A mixture of high technology and what John Wayne called "true grit" have combined to allow them to break down barriers that might seem insurmountable to those of us who have never had to deal with them.

Eye-movement Monitor

Brazilian digital artist Cesar Rizzo Cassemiro was a designer in the product-creation area for a large multi-national corporation and helped design disc-brake systems for several vehicles. A degenerative disease first affected his arms and eventually left him unable to control his movements sufficiently to do his work. Today he has control only of his eyes, yet he is able to work full-time in digital art creation by computer.

A product called Quick Glance lets him use all of the programs installed on his computer. The device consists of two cameras focused on one eye. The cameras monitor the position and movement of the eye and allow the user to replace the mouse and keyboard with eye movement. After an initial period of learning the software and perfecting his technique, Cassemiro has found himself creating digital art on his computer. He composes email by activating a virtual keyboard on screen and typing with the cursor.

Head-movement Trackers

Denis Anson, a researcher at College Misericordia in Dayton, PA, is doing a study of head-tracking devices. He notes that if a person had control of his head movements, he would not use Quick Glance. He explains, "The Quick Glance also doesn't have the resolution that I'd want in a graphics device. On the other hand, for about eight times more money, the Eye Gaze Computer, from LC Technologies, does offer fine control, allows head movement and is now available in a wheelchair-mountable system. My initial impression is that for about eight times the money, you get more than ten times the control and usability.

It's an expensive device but, if you want someone to be able to work, a more viable one than Quick Glance."

Head mice. Despite cerebral palsy, John Duganne III has earned a Bachelor of Fine Arts degree in experimental animation from the California Institute of the Arts. Duganne uses the HeadMouse from Origin Instruments to help him do his work. It's an infrared-reflective device that requires the user to wear a small reflective dot on the body and uses an infrared-camera system to track that dot in space. The device is wireless and relatively unobtrusive.

Anson says Origin's HeadMouse is essentially equivalent to The Tracker 2000 from Madentec. There is also a faster and smoother product, the HeadMaster from Prentke Romich, that has been the "gold standard" for head pointers since its introduction in 1986 on the Macintosh. "It provides an immediate feeling of control over the mouse pointer. Its main drawbacks are the headset that you have to wear, the fact that it only supports [at the headset] a single button, where the PC mouse has two, and the fact that you are tethered to the computer."

A mouse and a splint

In 1983, Steve Hartley of Vancouver, BC, took a dive into a swimming pool that left him a C-5/6 quadriplegic. Hartley says that he has "very limited use of my arms, no use of my hands and total paralysis below my shoulders." But his condition has not proven to be a handicap when it comes to making a living as a graphic artist.

He now keeps three Macs running an 8500, a G3 iBook and a G4 dual processor. "I rest my hands on the mouse and it feels like an extension of my body. I access the keyboard by using a splint which keeps my index *continued on page 8*

Refreshing Opportunity

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equipment for adaptive water sports to individuals with disabilities. Responsibility for the program rested with Spaulding's therapeutic recreation department, but all efforts were coordinated by physical and occupational therapists as well as therapeutic recreation specialists.

Spaulding, however, was able to offer the program only on a limited basis since the hospital had to transport patients to a nearby community boating facility/dock where the crafts were launched into the Charles River. Transportation cut into the amount of time that patients could spend on the water. Also, it was very difficult for staff and patients to visualize the adaptive sports program- people who hadn't seen it couldn't believe that severely disabled patients could windsurf.

This year, Spaulding built its own pier and floating dock specially equipped for adaptive sports, so that more patients could enjoy the water for longer times. The 70 by 60 feet pier looks out onto the Charles River and has benches for patients and staff to enjoy the river views. Attached to the pier is a 20 by 60 feet floating dock to allow water access for patients. The dock includes a lift to transfer patients from wheelchairs to adaptive water equipment.

The high-challenge water sportsoffered three days a week this past summer to both inpatients and outpatients with a multitude of diagnoses- included windsurfing, kayaking, canoeing, and rowing. In addition, fishing and horticultural activities were offered.

The reaction of patients was often mixed during the first session. They were excited to try something new and nervous about attempting a high-challenge activity because of their disabilities. However, the nervousness dissolved after the first few minutes on the water. Patients were at ease and eager to return for a second session.

"I was overjoyed when it was suggested that I participate in the program," said Bill Wambold, who had a stroke. "My philosophy is that therapy is ongoing, and you have to keep working at it. Although this is work, it's also fun. When I'm out on the water, it's an exhilarating feeling.

How long patients participated depended upon many factors, including the length of stay. Some patients were there for only a short time, and therefore only participate once or twice. However, those patients might return as outpatients in the program. There are some patients who have participated as many as a dozen times.

Adaptations made to the equipment differed, depending upon what kind of disability the patient had. For example, windsurfers might have a seat attached for patients who need to sit. Otherwise, there might just be a bar that they can lean against to support body weight, promote balance.

"Programs and activities of this nature have a two-prong effect: one is physical and the other is psychosocial," said Patti Mechan, P.T., M.P.H., C.C.S., professional development manager for physical therapy at Spaulding and one of the coordinators for the program.

Muscle strength and coordination can increase, according to Mechan, when patients "work on treatment plans that their therapists have given them, in a setting that's quite different from the traditional atmosphere of a gym, hallway or stairway."

Patients can, sometimes, also see their capacity or their prowess improve over time, she said. "When people approach an activity that they have never done before-whether it is mental or physical-then accomplish it, it gives them a sense of satisfaction, a sense of confidence. And that can sometimes boost their confidence in their approach to other things."

Patients with disabilities also learn to enjoy life through a rekindled interest in previous recreational pursuits or the challenge of new, invigorating opportunities. It helps them to move beyond their physical limitations and participate in the world around them - an essential component to success after leaving the hospital.

However, while the Spaulding staff has their own opinions on the effects on patients - from personal observance - the hospital wants more concrete evidence of the program's worth, according to Mechan, and, this year, is formally collecting data on the changes in patients, from the beginning of their involvement in the program to the conclusion.

Since the adaptive water activities are not reimbursable, the hospital is relying on donations to fund the program and, after the pilot research program is completed, hopes to be in a better position to show would-be donors proof of the program's value.

But the patients' stories themselves are pretty good evidence.

"Participating in the adaptive sports program gives me a chance to do something that I wouldn't have attempted before I got sick," said Trisha Malphrus, a patient with lupus. I have gained more endurance and improved my balance. It also has helped increase my self-esteem. Doing these activities gives me a new confidence that I had lost as a person with disabilities.

For additional information on Spaulding's Adaptive Sports Program, please contact Marie Burke at (617) 573-7104.

Technologies

continued from page 6 finger straight and allows me onefinger typing. "

Because Hartley works out of his home office, many of his customers have no idea that he's disabled.

Voice Controller

Philip Martin Chavez is an artist with multiple disabilities, including C-4/5 spinal injury. The initial spinal injury occurred at age 16, thirty years ago. After that injury, he continued to draw using a finger splint until an automobile accident ended his ability to use his hands. Now, utilizing a basic PC, the basic paint program bundled with Windows 95 and the DragonDictate voice-recognition program, he paints in many styles, from architectural art to textile design to art for children

His method is "actually fairly simple and allows anyone who can verbalize commands to draw lines with pencil, different paint brushes, and so on. You simply choose a color from the program and pick a brush or pencil and start directing the mouse by verbal commands like 'drag upper left,' or 'drag left,' or 'slower' or 'faster'. Some of my pieces are done by starting the mouse with voice while simultaneously drawing with the trackball. I have a style combining my voice and hand movements in unison to create a 'ripped' texture which is truly my own."

Keyboard Customizer

Mike Phillips has turned his love of photography and his love of computers into earning not only his high school diploma with honors and admission to the International Academy of Design on a state scholarship, but also the status of Apple Master, public speaker and advocate for the disabled.

Spinal muscular atrophy (Werdnig-Hoffman disease) has left Michael Phillips unable to use his arms and legs effectively, but with assistive technology, he easily operates a camera and a computer. He has used his Nikon camera with a string activator from AbleNet to photograph celebrities from President Bush to Al Gore, Dan Rather, Reggie Jackson and David Letterman. His work has appeared in *3D Design* magazine and at Macworld New York 2000, SIGGRAPH and other technology conferences. Phillips says, "Adobe, NewTek and Corel are always coming out with new software to keep my creativity flowing. Of course, none of my work would be possible without Apple hardware and Don Johnston Inc.'s superb assistive-technology hardware-software package, Discover: Kenx. Discover runs seamlessly with just about every app out there, replacing both mouse and keyboard functionality, and it runs best on the Mac."

Conclusion

The wide variety of assistive tools available to those with disabilities is hardly limited by those we have seen here. Some are as inexpensive and low-tech as a finger splint. Other tools are sometimes expensive, but when weighed against the value of an employee's abilities, the cost is no greater than the other investments companies have always made in training and education.

Contact Information

For additional information, or for referral to useful websites related to this article, you may contact the author at: **bealss@iname.com.**

Steven Beals lives and works in Seneca Falls, New York.

Information Center

P.O. Box 750119 Arlington Heights, MA 02475-0119

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