OFFICIAL PUBLICATION OF THE CANADIAN ACADEMY OF AUDIOLOGY
PUBLICATION OFFICIELLE DE L'ACADÉMIE CANADIENNE D'AUDIOLOGIE

Canadian Hearing Report

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Vol 2 No 1

Revue canadienne d'audition

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Happy New Year! On behalf of the CAA Board of Directors, I wish you a safe, wonderful, and prosperous 2007.

No doubt, on this past New Year's Eve, like so many before, most of you discussed your plans for 2007 and created a long list of New Year's resolutions. Two of the resolutions on my list for 2007 are, first, to help our editor-in-chief, Professor André Marcoux, produce and distribute four issues of *Canadian Hearing Report* and, second, to encourage Canadian audiologists to become members of CAA.

So, it is with pleasure that the editorial staff present to you the first 2007 edition of the *Canadian Hearing Report*. I am hopeful that this eclectic collection of articles provides an interesting mix of interesting topics, with something for everyone.

Chester Pirzanski's article on earmold modelling focuses on recent developments in custom BTE earmold fabrication.

In his article on client satisfaction, Markus Hilbert highlights the importance of service to ensure that our patients get the best hearing health care possible.

Last May, Professor André Marcoux travelled to Zambia with two students from the University of Ottawa. Mary Wichterle and Christine Turgeon have written a fascinating article that captures the essence of providing audiology in a developing country.

Other contributions to this edition include an article from Widex that highlights the 50th anniversary of this family-owned Danish company, as well as an update from two of our partners, the Canadian Hard of Hearing Association (CHHA) and the Hearing Foundation. Also featured are a description of the new Canadian Alliance of Regulators, and an article from Carri Johnson, who reviews last year's 9th annual CAA conference.

With my second resolution for 2007 in mind, I would be remiss if I didn't point out the importance of membership in CAA, your professional organization. *Canadian Hearing Report* is just one of the benefits of membership in CAA. Others include an affiliation with the International Society of Audiology (ISA), information from provincial focus groups that keep you up to date on what is happening across the country, and access to our annual world-class conference.

If you are already a member, I thank you for your support and urge you to encourage one of your colleagues to join CAA now. If you are reading this edition of *Canadian Hearing Report* but are not a member, please join today and become involved in your professional association!

Again, my best wishes to you for the new year! Together, let's make 2007 the most successful ever for CAA.

Glen Sutherland
Associate Editor

BONNE ANNÉE! De la part du conseil de direction de l'ACA, je vous souhaite une année 2007 merveilleuse et prospère.

Aucun doute, à la veille de cette nouvelle année, comme plusieurs précédentes, beaucoup d'entre vous avez discuté de vos plans pour 2007 et avez créé une longue liste de résolution du Nouvel An. Deux de mes résolutions pour 2007 sont d'aider notre rédacteur en chef, Dr. André Marcoux, à produire et distribuer quatre nouveaux numéros de la *Revue Canadienne d'Audition* pour cette année et d'encourager les audiologistes canadiens à devenir membre de l'ACA en 2007.

Alors, c'est avec grand plaisir que le personnel de l'éditorial vous présente la première édition de 2007 de la *Revue Canadienne d'Audition*. Je crois sincèrement que cette collection éclectique d'articles fournira un mélange de sujets intéressants avec quelque chose pour tous les goûts.

L'article de Chester Pirzanski sur les impressions de moules d'appareils se concentre sur les développements récents de la fabrication des embouts de BTE et des coquilles d'intra-auriculaire.

Dans son article sur la satisfaction du patient, Markus Hilbert a souligné l'importance du service pour garantir que nos patients reçoivent le meilleur soin possible en ce qui à trait à la santé auditive.

En mai dernier, Dr. André Marcoux s'est rendu au Zambie avec deux étudiantes de l'Université d'Ottawa. Mary Wichterle et Christine Turgeon ont écrit un article fascinant qui capte l'essentiel des raisons pour offrir des services d'audiologie dans les pays sous-développés.

D'autres contributions apportées à cette édition incluent un article de Widex qui souligne le 50e anniversaire de cette compagnie danoise, ainsi qu'une mise à jour de deux de nos partenaires soit l'Association Canadienne de l'Ouïe et la Fondation de l'Ouïe. Il y figure aussi une description de la nouvelle Alliance canadienne des organismes de réglementation de l'audiologie et de l'orthophonie et un article de Carri Johnson qui fournit un résumé de la 9e conférence annuelle de l'ACA de l'année dernière.

Avec ma deuxième résolution de 2007 à l'esprit, je serais négligent si je ne mentionnais pas l'importance d'une adhésion à l'ACA, votre association professionnelle. La *Revue Canadienne d'Audition* est seulement l'un des bénéfices d'une adhésion à l'ACA. Les autres incluent une affiliation avec la société internationale de l'audiologie, l'accès à de l'information de groupes de discussion provinciaux qui nous tiennent à jour sur ce qui se passé à travers le pays et donne accès à notre conférence annuelle de renommée mondiale.

Si vous êtes déjà membre, je vous remercie pour votre support et vous invite à encourager vos collègues à se joindre à l'ACA dès maintenant. Si vous lisez en ce moment cette édition de la *Revue Canadienne d'Audition*, mais que vous n'êtes pas membre, s'il vous plaît adhérez dès aujourd'hui et impliquez-vous dans votre association professionnelle! S'il vous plaît, impliquez-vous.

Encore une fois, BONNE ANNÉE! Ensemble, faisons de 2007 la meilleure année pour l'ACA.

Glen Sutherland,
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Canadian
Hearing Report
Revue canadienne d'audition

Vol 2 No 1, 2007

Official publication of the
Canadian Academy of Audiology

Publication officielle de l'académie
canadienne d'audiologie

Canadian Hearing Report is published four times annually by Andrew John Publishing Inc. with offices at 115 King Street West, Dundas, On, Canada L9H 1V1.

Publications Agreement Number 40025049
ISSN 1718 1860

Return undeliverable Canadian Addresses to:
ANDREW JOHN PUBLISHING INC.
P.O. Box 65525, Dundas Postal Outlet
Dundas, ON L9H 6Y6

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PRESIDENT'S MESSAGE

For those who have been audiologists for a number of years, the provision of education and communication from a national association has not always been easy to come by.

I recall attending a conference as a young audiologist where topics of relevance were only offered twice per day. I am truly pleased to see that Canadian audiologists are able to receive the highest continuing education opportunities without having to travel abroad. Of course, our conference has always been a great success and now, on any given year, comes close to attracting half the number of audiologists in this country. However, we are now able to offer of a full assortment of events and journals to our members. For example, the more academically and scientifically inclined can benefit from our affiliation with the International Societies of Audiology to obtain the *International Journal of Audiology*, which features articles from our Canadian institutions as well as from those abroad. From a communication standpoint, our trade journal, the *Canadian Hearing Report* offers practical scientific articles, tips for clinical and business purposes, as well as the latest CAA news. We hope that you will enjoy this first issue of the 2007 *Canadian Hearing Report*, which you will continue to receive with your CAA membership, and that it will be an invaluable resource for you.

Membership Objectives

This year will highlight an active recruitment campaign, aimed at bringing at least 75% of audiologists to the academy. It has become apparent that most Canadian audiologists were members of CAA at some point in time since its inception in 1997. However, as a new organization, it may have been difficult for the CAA to provide value for money during its early years. As a result, audiologists have come and gone from the CAA depending on various factors. In recent years, the CAA has become a leading organization that has been able to promote our profession as well as advocate for our profession in several forums. As the landscape of our profession is rapidly changing, the CAA is poised to lead audiology in the right direction. However, in this time of critical change, we need audiologists from across the country to be at the table to help us plan our future. There has never been a more exciting time to become a member of CAA and we ask you to take advantage of this historic opportunity, when we can come together and make decisions which come from the masses. Let us take our desired position within hearing healthcare once and for all. Membership forms and guidelines are available on our website (www.canadianaudiology.ca)

Stepping Up our Mentoring Efforts

As a professor of audiology, it is difficult to accept that we must often reduce the number of admissions from year to year, based on the simple fact that we are unable to find clinicians who will consider

MESSAGE DU PRÉSIDENT

Pour ceux qui sont des audiologistes depuis de nombreuses années, vous êtes sûrement conscient que les conditions d'éducation et de communication pour une association nationale n'ont pas toujours été faciles atteindre.

Je me rappelle avoir assisté à une conférence alors que j'étais un jeune audiologiste et où les sujets d'intérêts n'étaient présentés que deux fois par jour. Je suis vraiment enchanté de voir que les audiologistes canadiens peuvent recevoir des opportunités de hauts niveaux en formation continue sans avoir à voyager à l'étranger. Certes, nos conférences ont toujours été un grand succès et attirent maintenant et depuis quelques années la moitié des audiologistes de ce pays. De plus, nous pouvons maintenant offrir un vaste éventail d'événement et de journaux à nos membres. Par exemple, ceux qui ont un penchant pour les domaines plus académiques et scientifiques pourront bénéficier de notre affiliation avec *l'International Society of Audiology* afin d'obtenir l'International Journal of Audiology dans lequel figure des articles non seulement de nos institutions canadiennes, mais aussi des institutions de d'autres pays. D'un point de vue plus communicatif, notre journal, la *Revue Canadienne d'Audition*, offre des articles scientifiques pratiques, des trucs pour la pratique clinique et les intentions d'affaires en plus d'être la source des dernières nouvelles de l'Académie. Nous espérons que vous apprécierez ce premier numéro de la *Revue Canadienne d'Audition* de l'année 2007. Il est à noter que vous continuerez de recevoir ce journal avec votre abonnement à l'ACA et qu'il sera une ressource inestimable pour vous.

Les objectifs d'adhésion

Cette année sera soulignée par une campagne de recrutement active ayant pour but de rassembler à l'ACA au moins 75% des audiologistes. Il est devenu clair que la majorité des audiologistes canadiens étaient membres de l'ACA depuis sa fondation en 1997. Cependant, en tant que nouvelle organisation, il peut être difficile pour l'ACA d'atteindre les attentes spécifiques à ses débuts. Ainsi, les audiologistes se sont joints ou ont quitté l'ACA pour différentes raisons. Au cours des dernières années, l'ACA est devenue une organisation de premier plan qui est capable de promouvoir notre profession en plus de représenter notre profession dans diverses assemblées. Comme le visage de notre profession change rapidement, l'ACA s'assure de diriger l'audiologie dans la bonne direction. Cependant, en ce temps de changement critique, nous avons besoin des audiologistes de partout dans le pays pour nous aider à bâtir notre avenir. Il n'y a jamais eu de moment plus excitant pour devenir membre de l'ACA et nous vous demandons de prendre part à cet événement historique alors que nous nous joignons ensemble et prenons des décisions qui répondent aux intérêts de la population. Permettez-nous de prendre notre place au sein des soins de santé de l'audition une fois pour toutes. Les formulaires d'adhésion et les directives sont disponibles sur notre site web (www.canadianaudiology.ca).

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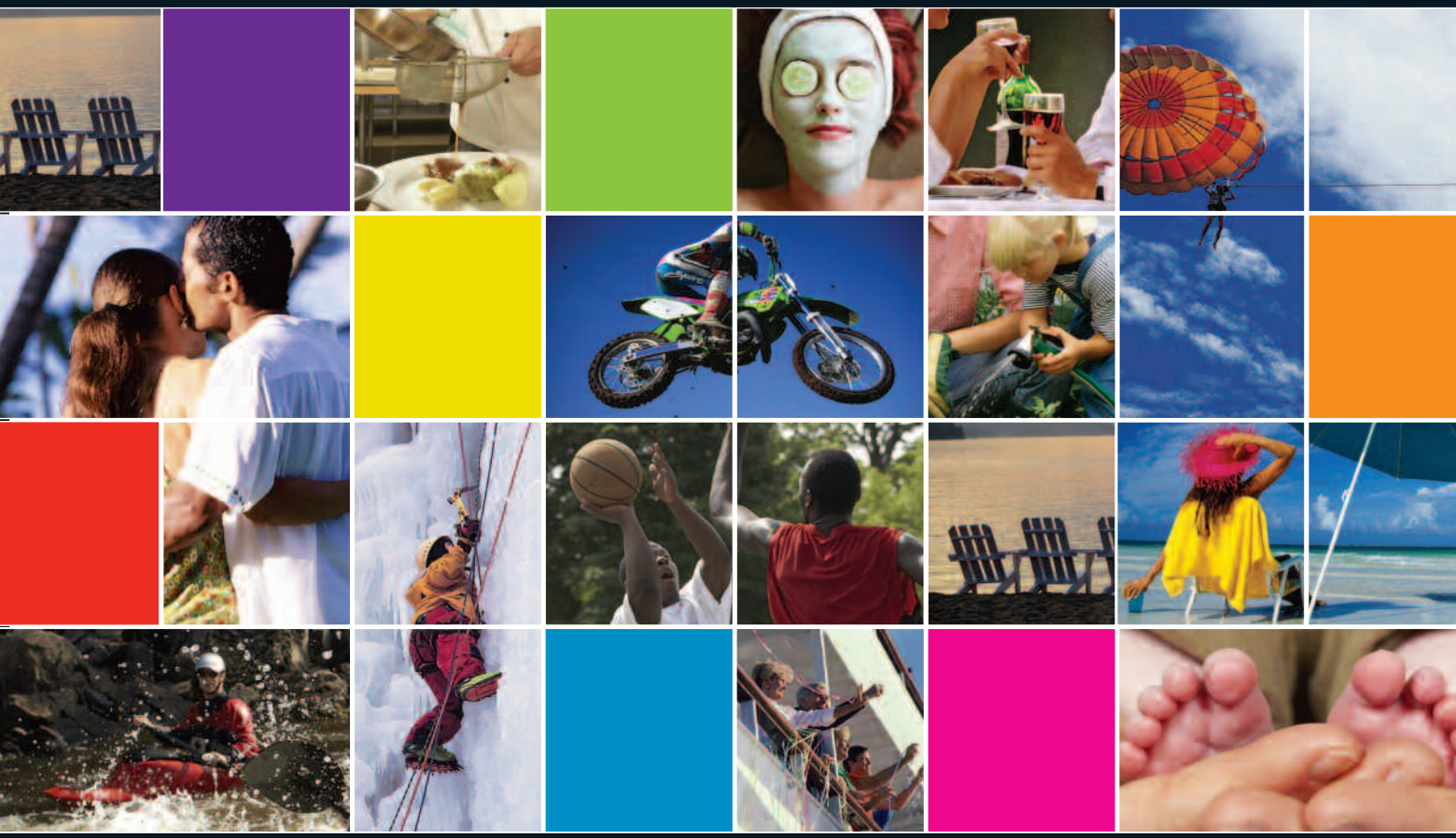

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PRESIDENT'S MESSAGE

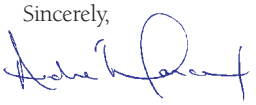
taking university students for a practicum. Private practice audiologists have a very low mentorship rate in many areas. I have been told at times that audiologists do not want to mentor students as they believe they are "training their competition." Such statements are ironic when observing that competition is much more likely from graduates of disciplines such as hearing instrument dispensing and audiology assistants, who significantly outnumber audiology graduates on a consistent basis. Furthermore, there is an important need for audiologists in this country. Populations in several regions do not have access to adequate audiology services. I therefore feel that it is rather short-sighted to forfeit our duty to mentor our future audiology colleagues. Let us ensure that we do not provide disservice to a profession that has been so generous to all of us over the years. Call the clinical coordinator at your closest university today to offer your mentorship services and help ensure your legacy within our profession.

Volunteers

I would personally like to thank all the volunteers that have dedicated countless hours of their time to the academy. We would not be the successful organization we are today without your help and devotion. As most volunteers will attest, time spent helping CAA is both highly stimulating and rewarding. Should you have some time to spend on one of our various committees, I would personally like to hear from you so that we may start using your talents during this very busy year.

In closing, I would like to wish all of you a healthy, peaceful, and prosperous year.

Sincerely,



André Marcoux, Ph.D.
President

MESSAGE DU PRÉSIDENT

Mettons de l'avant nos efforts de mentorat

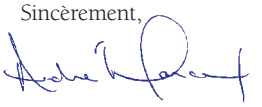
En tant que professeur en audiologie, il est difficile d'accepter que nous devions réduire le nombre d'admissions d'année en année pour la simple raison que nous sommes incapables de trouver des cliniciens qui voudront prendre des étudiants universitaires pour un stage. Les audiologistes en pratique privée ont un taux très faible de mentorat dans plusieurs domaines. Je me suis faire dire une fois que les audiologistes ne désirent pas être un mentor pour ces étudiants, car ils croient qu'ils «amènent de la compétition». Une telle affirmation est ironique lorsqu'on observe que la compétition vient beaucoup plus des diplômés des autres disciplines comme les audioprothésistes et les assistants en audiologie qui sont, sur une base logique, en plus grand nombre que les étudiants diplômés en audiologie. En outre, il y a un besoin important d'audiologiste dans ce pays. Les populations de plusieurs régions n'ont pas accès à des services adéquats en audiologie. Je trouve donc irréfléchi que nous manquions à notre devoir de mentor pour nos futurs collègues en audiologie. Permettez-nous d'assurer que nous ne portons pas préjudice à une profession qui a été si généreuse pour nous tous à travers les années. Appelez dès aujourd'hui le coordonnateur clinique de l'université près de chez vous pour offrir vos services de mentor et ainsi aider à assurer votre patrimoine au sein de notre profession.

Bénévoles

Je voudrais remercier personnellement tous les bénévoles qui ont dévoué des heures infinies de leur temps pour l'Académie. Nous ne serions pas une organisation aussi réussie sans votre aide et votre dévouement. Comme plusieurs bénévoles le témoigneront, le temps consacré à aider l'ACA est autant stimulant que gratifiant. Si vous avez du temps à consacrer sur un ou plusieurs de nos comités, je voudrais personnellement que vous me le laissiez savoir et nous pourrons ainsi commencer à utiliser vos compétences durant l'année chargée qui s'annonce.

Pour conclure, je voudrais vous souhaiter à tous et chacun une année remplie de santé, de paix et de prospérité.

Sincèrement,



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IN MEMORIAM

Moneca Price Remembered

Her obituary, published in the Ottawa Citizen on January 12, 2007, was short and simply put:

Price, Moneca Senior Audiologist, Canadian Hearing Society Unexpectedly on Wednesday, January 10, 2007. Cherished wife of David Price and dear daughter of Paul Wyszkowski. Friends may call at the Garden Chapel of Tubman Funeral Homes, 3440 Richmond Road (between Bayshore and Baseline Road), Nepean on Sunday, January 14, 2007 from 10 a.m. to 12 noon with words of remembrance at 12 noon. Condolences, tributes or donations may be made at www.tubmanfuneralhomes.com.

The tragic news shocked and saddened all the people who knew her. However, the many contributions from family members, friends, and colleagues found in the online Guest Book of the *Ottawa Citizen*, give a more complete story of our friend and colleague, Moneca Price.

On behalf of the Canadian Academy of Audiology, President André Marcoux sums up Moneca's passion for her profession. "It has been an immense joy to have worked alongside Moneca in some fashion over the course of the last decade. More recently, I had the privilege of serving with Moneca on our board of directors of the Canadian Academy of Audiology. Moneca worked relentlessly on several of our communication projects, including our annual conference and website. As many will attest, Moneca distinguished herself with her cheerfulness and passion for her profession and for the patients she welcomed into her life. Moneca leaves behind a legacy for our profession characterized by dedication, integrity and genuineness."

This is but one of the contributions in the Guest Book. Please go online to: www.legacy.com/canottawa/GB/ GuestbookView.aspx?PersonId=85943506 where you can read numerous tributes; and, remember Moneca.

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Canadian Hard of Hearing Association– Cross-Canada Community Support

By Carole Willans-Théberge, National President of the Canadian Hard of Hearing Association

The Canadian Hard of Hearing Association (CHHA) is a consumer self-help organization formed by and for persons who are hard of hearing and deafened. It works cooperatively with professionals, service providers, and government, and provides Canadians from coast-to-coast with information about hearing loss issues and solutions. With seven provincial chapters and 54 local branches, the Canadian Hard of Hearing Association provides real support to real people, as well as being an active contributor in policy development at the federal, provincial and municipal levels. The National Board of Directors consists of a majority of hard of hearing or deafened representatives from across the country, and currently includes an audiologist and a young adult representative.

The Canadian Academy of Audiology (CAA) is among the Canadian Hard of Hearing Association's staunchest supporters–in 2004 these two organizations entered into a Memorandum of Understanding which recognizes their similar interests on a broad range of hearing health issues, notably in the area of quality hearing health care and education for persons with hearing loss. One shining example of their collaboration has seen the CAA act a key participant in the Canadian Hard of Hearing Association's ongoing Hearing Health Care Project, Hearing Awareness–A Cornerstone of Canada's Social Fabric.

The Canadian Hard of Hearing Association's popular bilingual magazine, *Listen/Écoute*, is published three times a year. Audiologists and other hearing health care professionals are encouraged to make it available to their clients in their waiting rooms. The magazine contains useful information on a broad range of hearing related issues of interest to consumers and to professionals alike. Many professionals become members of CHHA to obtain the magazine–which, I am often told, is eagerly read from cover to cover. There is even more information available on the web site at www.chha.ca and many professionals have also obtained assistance by calling the National Office's toll free number 1-800-263-8068.

The **2007 Canadian Hard of Hearing National Conference** will be held at the Fantasyland Hotel in Edmonton from May 24 to 27, 2007. In addition, there is mounting excitement in the preparations, already well underway, for **the International Congress 2008 for Persons with Hearing Loss** which will be held at the fabulous Sheraton Wall Centre in downtown Vancouver from July 2 to 6, 2008. The Canadian Hard of Hearing Association and the International Federation of Hard of Hearing People (IFHOH) invite readers of *Canadian Hearing Report* to attend this one-of-a-kind event! A special feature of the Congress will be the meeting of young adults from across the globe to discuss topics of particular interest to this group. Through an exchange of ideas, they hope to learn about the issues faced by young adults in other countries, their solutions, and how they can work together as a global community. For further information on Congress 2008, you can send an e-mail to congress2008@chha.ca. The overall theme of this international event is A Global Community of Communication.

L'Association des malentendants canadiens – Un soutien communautaire à l'échelle du pays

Par Carole Willans-Théberge, présidente nationale de l'Association des malentendants canadiens

L'Association des malentendants canadiens (AMEC) est un organisme d'entraide de consommateurs constitué par et pour les personnes malentendantes ou devenues sourdes. Elle coopère avec des professionnels, des fournisseurs de services et des organismes gouvernementaux et elle communique aux Canadiens et Canadiennes
l'information sur les questions et les solutions concernant la déficience auditive. Ayant sept chapitres provinciaux et 54 secteurs locaux, l'Association des malentendants canadiens offre un véritable soutien communautaire à l'échelle du pays et elle participe activement en matière de développement des politiques aux niveaux fédéral, provincial et municipal. Son conseil d'administration comprend majoritairement des personnes malentendantes ou devenues sourdes de partout au Canada, comptant actuellement aussi un audiologiste et un représentant des jeunes adultes malentendants.

L'Académie canadienne d'audiologie (ACA) figure parmi les partisans les plus fidèles de l'Association des malentendants canadiens–en 2004 ces deux organismes ont signé un protocole d'entente reconnaissant leurs intérêts similaires sur diverses questions de santé auditive, notamment la prestation de soins et l'éducation de qualité aux personnes ayant une déficience auditive. Un exemple hors pair de cette collaboration est la participation de la première heure de l'ACA à un projet d'envergure de l'AMEC, La sensibilisation à la déficience auditive–une pierre angulaire de la structure sociale du Canada.

Le magazine populaire de l'Association des malentendants canadiens, *Écoute/Listen*, est bilingue et publié trois fois l'an. Les audiologistes et les autres professionnels de la santé auditive sont encouragés à en placer un numéro à la disposition de leurs clients dans leurs salles d'attente. Le magazine contient des renseignements utiles sur un large éventail de questions d'intérêt aux consommateurs malentendants et aux professionnels. Plusieurs de ces derniers deviennent membres de l'AMEC pour obtenir le magazine–lequel est alors lu en entier. D'autres renseignements sont disponibles sur le site Web au www.chha.ca et de nombreux professionnels obtiennent de l'aide en communiquant directement avec le Bureau national en appelant sans frais 1-800-263-8068.

La Conférence nationale 2007 de l'Association des malentendants canadiens aura lieu à l'Hôtel Fantasyland à Edmonton des 24 au 27 mai 2007. De plus, beaucoup d'énergie est déjà vouée aux préparatifs pour le **Congrès international 2008 pour les personnes malentendantes**, devant avoir lieu au fabuleux Sheraton Wall Centre au centre-ville de Vancouver des 2 au 6 juillet 2008. L'Association des malentendants canadiens et l'International Federation of Hard of Hearing People (IFHOH) invite les lecteurs et les lectrices de la Revue canadienne d'audition à assister à cet événement hors de l'ordinaire! Un élément particulièrement intéressant du Congrès est le rendez-vous que s'y donnent des jeunes adultes de toute la planète pour traiter des questions pertinentes sur la déficience auditive. En échangeant des idées, ils espèrent déterminer les difficultés auxquelles les jeunes adultes d'autres pays font face, les solutions mises en œuvre dans les autres pays et comment régler les questions ensemble en qualité de communauté mondiale. Le thème d'ensemble du Congrès est « Une communauté mondiale pour la communication ». Pour plus de renseignements concernant le Congrès international, vous pouvez adresser un courriel à congress2008@chha.ca.

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The Hearing Foundation of Canada is committed to Sound Sense in more ways than one–not only is Sound Sense the name of our innovative hearing awareness program for preteen students, but it's also our philosophy. We believe that investing in educational programs and medical research will have a huge and positive impact on the long-term hearing health of Canadians.

We all know that hearing loss has many causes, but the fastest-growing threat to our children's hearing is noise. Young people are exposed to more loud noise from more sources than ever before and, as a result, noise-induced hearing loss (NIHL) is occurring at increasingly younger ages–with effects that last a lifetime.

Research shows that the better children hear, the better they learn. Even mild hearing loss can affect academic, social, and future career achievements. Studies also confirm the success of hearing conservation programs, yet the protection of one of our most valuable senses is not currently taught in the school curriculum.

The Hearing Foundation of Canada is taking steps to change that with the introduction of **Sound Sense: Save Your Hearing for the Music!/Oui à l'Ou¥e: Ménagez Vos Oreilles Pour La Musique!** a hearing awareness program that complements the elementary school healthy living curricula across the country. This entertaining presentation taps into our love of music, to educate students about their amazing sense of hearing, how it works, what makes it not work, what it might be like to have hearing loss, and, most importantly, what they can do to protect their hearing and prevent noise-induced hearing loss.

The program's concept and development was endorsed by six Ontario elementary school boards, Dr. Andrew Smith of the World Health Organization, the Workplace, Safety & Insurance Board, the Canadian Academy of Audiology, and the Canadian Hard of Hearing Association. Thanks also for further support and funding from our founders (the Ontario Trillium Foundation, RBC Financial Group, TD Financial Group, Sertoma Foundation of Canada, Howard Leight, and others), and managed by provincial delivery partners, and supported by audiologists, Sound Sense has been introduced to thousands of schools in Ontario, Alberta, and British Columbia, and is soon to be in Manitoba. Excitement about the program is spreading and we are working to obtain further funding to run Sound Sense nation wide.

Not only is Sound Sense easy to deliver, and includes a highly entertaining 10-minute video starring Spike (an animated 15-year-old skateboarding dude) and some live musician friends, but the program kit stays in the school for delivery by teachers in future years. Teachers, students, and parents can access Soundsense.ca, a resource website, along with receiving a student take-home pack that includes: earplugs, stickers, and "Practice Safe Listening!" an important information sheet for parents on hearing protection strategies (available in over 16 languages).

Students love the program.

"I wish you would have told us this before!"

"Thank you for…showing us how important it is to keep our ears safe"

Teachers love the program.

"Finally!"

"Definitely worth having. It did make the students very aware of how their listening habits can affect them long term."

Audiologists love the program.

"It's fun to deliver and finally gives me an opportunity to deliver the prevention message!'

Beyond the Audiogram

To compliment this public education program is the continuing medical research support provided by The Hearing Foundation of Canada. Each year we fund researchers from across the country as they investigate various scientific and clinical aspects of hearing loss. In addition to that, for the first time, and in conjunction with the National Centre for Audiology at the University of Western Ontario, we are funding a national hearing research symposium in January called Beyond the Audiogram.

This exciting event is not simply a research "show and tell", but a special meeting of over 35 preeminent hearing researchers from across the country who will work jointly towards defining and developing a better set of diagnostic tools for audiology. Asking questions such as, "What is normal hearing and how should hearing be measured?" this group will examine our reliance on measures of auditory sensitivity and a definition of hearing that is based on what an individual cannot hear rather than what they can.

For more information about Sound Sense and Beyond the Audiogram please contact Gael Hannan or Richard Bowring at 416-364-4060, or info@hearingfoundation.ca.

In 1995 they launched
the first digital in-the-ear hearing aid

“What will they think of Next?”

Canadian Alliance of Regulators of Audiology and Speech-language Pathology (CAR)

The colleges in Alberta, Ontario, and Quebec and provincial professional associations in Manitoba, New Brunswick, and Saskatchewan that regulate the practice of audiology and speech-language pathology are pleased to announce the creation of the **Canadian Alliance of Regulators of Audiology and Speech-language Pathology (CAR)**. These six provinces have established regulatory bodies by legislation with the mandate to set standards and engage in other activities to regulate their registered members. Well over 80% of audiologists and speech-language pathologists in Canada are regulated and practice in a regulated jurisdiction.

The regulatory bodies believe CAR will enable them to take a leadership role in regulatory matters affecting audiology and speech-language pathology. It will give the regulators a voice to help eliminate the confusion around who actually regulates audiologists and speech-language pathologists in Canada. It will also facilitate the coordination of our activities and decisions in the interests of the public. Many, if not most, regulated professions have national forums for these purposes.

Establishing CAR will help regulatory bodies to maximize and perhaps even save resources. Many of us are working already on the development of standards and tools to assist our members to comply with them that can have application across Canada. Regulators will also share the costs of translating documents.

Provincial governments have given their regulatory bodies several basic mandates including:

- To regulate the professions and govern members.
- To develop, establish and maintain standards of qualification for persons to be issued certificates of registration.
- To develop, establish, and maintain standards of knowledge and skill, and programs to promote continuing competence among members.
- To establish standards of practice.
- To establish standards of professional ethics.

Regulatory Bodies have a duty to "serve and protect the public interest." With this in mind it is essential that the regulators take a leadership role in regulatory matters affecting audiology and speech-language pathology and coordinate their activities in the public interest.

The first formal meeting of CAR took place in Calgary in October 2006. David Hodgson, Registrar of the College of Audiologists and Speech-language Pathologists of Ontario (CASLPO) was appointed as the first chair of CAR. At the meeting there was a valuable exchange of information on regulatory issues and many opportunities for cooperative effort were identified. It was agreed that the many regulatory documents in each province such as regulations, position statements, and practice guidelines would be reviewed with the goal of harmonizing standards to the greatest extent possible across Canada over time.

As a start it was agreed that the members of CAR would work together on the revision of the Preferred Practice Guideline on Dysphagia, the Position Statements on Supportive Personnel and Audiometric Screening, and on the development of a position on the Doctoral Degree for Audiologists.

As the regulatory bodies take a more coordinated leadership role in reviewing existing standards, harmonizing standards where possible and setting the course for new standards they will consult with the professional associations and the universities.

For more information on CAR contact your college or association if you are in one of the six regulated provinces or David Hodgson at dhodgson@caslpo.com.

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Widex celebrates 50th anniversary

In 2006 Widex A/S, one of the world's leading hearing aid manufacturers, celebrated 50 years in the business. The privately-owned Danish company marked the occasion by launching two new product lines: the top-of-the-line Inteo™ series and the mid-range AIKIA™ series. Both are a culmination of 50 years of ground-breaking research within hearing technology.

"Widex' vision is to develop instruments which perform optimally for hearing impaired people," explains Jan Topholm, president of Widex. "In the long run, I don't see Widex as the largest company in the business–I see it as the technology leader".

Widex is known as the technology leader with several technological breakthroughs in its history. Among these can be named Quattro™ in 1988–the world's first digitally programmable hearing aid–and in 1995, Senso™–the world's first fully digital in-the-ear hearing aid.

Both Inteo and AIKIA are expected to become leading products in each their segment thanks to the new **Integrated Signal Processing** technology. This completely new signal processing method provides a more detailed, clear, comfortable sound.

"We see ourselves as the discreet front-runner in the business," says Jan Topholm. "As a family-owned business we keep a lower profile, focusing our resources and competence on research and development of the best hearing instruments and supporting important causes."

The Widex spirit is born by the dedication and drive to help people with a hearing loss achieve a better quality of life. Widex' efforts to help children and young people with hearing loss span the globe, led by the internationally respected "**Widex Congress of Paediatric Audiology**" where top names in audiology gather to work for children's hearing.

At the same time, the company is dedicated to eliminating the stigma connected to hearing impairment. Since 2005, the **Widex Marathon Team** has involved hearing aid users and dispensers in running marathons for the hearing cause. In May 2007, Widex will send a team to the Great Wall Marathon in China, where the team members will run under the slogan "Unlock your potential". In connection with the marathon, Widex will donate a sum of money to Deaf Olympics based on the runners' performance.

Widex has over 1,500 employees and is represented in over 95 markets. The headquarters are located in Vaerloese Denmark, north of Copenhagen.

For more information, please visit our website www.widex.com or contact Joy Neufeld, Widex Canada Ltd.

The Canadian Academy of Audiology Announces the Formation of its Scientific Advisory Committee

A scientific advisory committee has been formed to provide scientific information to the CAA for the purpose of enhancing content related to the annual conference and other official communications. While the CAA has often relied on the expertise of some of its closest colleagues to assist in this task, the necessity of a structured and mandated has become apparent with the significant increase in size of our membership and attendance at our annual conference.

Dr. Rachel Caissie

Dr. Robert Harrison

Need better pics, these 2 too low res

Dr. Tony Leroux

Mr. Shane Moodie

The CAA is proud to announce that this committee will be formed by Dr. Rachel Caissie (Dalhousie University), Dr. Robert Harrison (Hospital for Sick Children, Toronto), Dr. Tony Leroux (Université de Montréal), and Mr. Shane Moodie (University of Western Ontario). Dr. Caissie's main research activities focus on topics related to audiological rehabilitation in older adults, primarily aimed at improving communication effectiveness between people with hearing loss and their families and significant others. Dr. Harrison has conducted substantial work in the area pertaining to the development and plasticity of the auditory system and the efferent control of cochlear function. Dr. Leroux, a professor of auditory neurophysiology, focuses on research related to the integration of sensory information as well as the influence of the auditory environment on postural control and the use of auditory cues to enhance traveling abilities in deaf-blind subjects. He is also involved in research projects looking the effects of environmental noise on health. Shane Moodie is a professor and clinical supervisor in audiology at the University of Western Ontario. His research interests focus on diagnostic and amplification strategies for children and adults.

We are delighted to have the expertise of these new scientific advisors and wish to thank them for the support and dedication to the CAA. Please join the CAA in wishing them a warm welcome!

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NINTH ANNUAL CANADIAN ACADEMY OF AUDIOLOGY CONFERENCE

By Carri Johnson

How the West Was Won!

Well as they say it is all over, but the crying. But the tears we are crying are tears of joy. The 9th annual Canadian Academy of Audiology (CAA) Conference, held at the Hyatt in Calgary, was a monumental success. There were 525 attendees and a new high of 42 exhibitors. And from all reports, a good time was had by all.

With 30 educational sessions there was something for everyone. Our keynote speaker, Mr. Colin Cantlie from Canadian Hard of Hearing Association (CHHA), gave us perspective into the benefits of working hand-in-hand with our clients to provide them with the information that they need to make appropriate decisions. At our general session Brad Ingrao of Audiology Online demonstrated how we can all stay on the cutting edge of audiology though continuing education opportunities on the Internet. Now we can learn online, in the comfort of our own homes and offices, according to our own schedule. This year we also had 14 scientific posters submitted for judging and we awarded our first Student Poster Award in many years to Maxine Armstrong for her poster "Frequency-channel interactions in brainstem and cortical auditory steady-state responses (ASSRs)." The President's Award was presented to Glen Sutherland for all of his contributions over the years to the field of audiology.

On a more social aspect, the auction was a great time for everyone involved, filled with wonderful items, and frivolity. "Miss Stella" and "Mean Joe Henne" would like to send out a big "Howdy" and "Great Job" to the members of the Auction Committee:

Sarah Ryan

Raegan Bergstrom

Sherry Garries

Their efforts resulted in $12,000 being raised to help with the aims and objectives of the CAA.

I would also like to take this opportunity to thank the rest of the conference committee their commitment over many years.

Chris Allen (Posters Presentation Coordinator)

Susan Nelson-Oxford (Student Volunteer Coordinator)

Anne Caufield (Proofreader and member at large)

And last, but not least I would like to thank Shannon Bott for all of her hard work as conference manager over the past 7 years.

CAA Conference 2007

Now we move on to our 10th Anniversary Conference October 17–20, 2007 at the Sheraton-on-the-Falls in Niagara Falls. In celebration of this monumental event we will be having a Gala Awards Ceremony and Auction, which will pale in comparison only to the Oscars. Make sure to be there to see who the paparazzi have their lenses trained on as we honour the Academy's best and brightest (as well as some of our funniest and downright silliest) stars.

On a more academic note the conference also has a diverse and impressive roster of speakers including:

Kamran Barin
Warren Estabrooks

Janet Jamieson
Andrew Johnson and Susan Scollie

Frank Musiek
Andrea Pittman

Todd Rickets
Brenda Ryalls

Yvonne Sininger
Anne Marie Tharpe

Sam and Janet Trychin
Dennis VanVliet

Brian and Theresa Walden
Terry Lynn Young

And our Keynote Speaker is:

Jack Katz

So don't forget to register early for the best deals. I can't wait to see you all on the red carpet.

Carri Johnson

2006 & 2007 CAA Conference Co-Chair

CAA Conference Board Liason

Stacy Webber, President 2005-2006

David Hodgson College of Audiologists and Speech-language Pathologists of Ontario (CASLPO)

Stacy Webber presents the Student Poster Award to Maxine Armstrong.

André Marcoux, President 2006-2007

Outgoing board members Joe Henne, Todd Mitchell, and Anne Griffith.

Stacy Webber, Colin Cantlie, and Marina deSouza

Canadian Academy of Audiology / Académie Canadienne d'Audiologie

10th Anniversary Conference

October 17 - 20, 2007

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Niagara Falls, Ontario

10th Anniversary
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KEYNOTE SPEAKER:
Jack Katz

SPEAKERS INCLUDE:
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• Frank Musiek • Andrea Pittman • Todd Ricketts • Anne Marie Tharpe
• Dennis Van Vliet • Brian & Theresa Walden • Terry Lynn Young

For more information and updates, please visit to our web site – www.canadianaudiology.ca

REGISTRATION 2007

Pre-conference Sessions
- ❑ $53.00 ($50 + 3.00 GST) Half Day Member
- ❑ $212.00 ($200 + 12.00 GST) Half Day Non
- ❑ $84.80 ($80 + 4.80 GST) Full Day Member
- ❑ $243.80 ($230 + 13.80 GST) Full Day Non

*this is a separate fee

10th Anniversary Gala (Very Early Bird)
- ❑ $79.50 ($75 + 4.50 GST) Member
- ❑ $106.00 ($100 + 6.00 GST) Non-Member

*this is a separate fee

Very Early Bird (before March 1, 2007)
- ❑ $424.00 ($400+ 24.00 GST) Member
- ❑ $636.00 ($600 + 36.00 GST) Non-member
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- ❑ $185.50 ($175 + 10.50 GST) Student Non

Early Bird (before July 1, 2007)
- ❑ $477.00 ($450 + 27.00 GST) Member
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- ❑ $79.50 ($75 + 4.50 GST) Student Member
- ❑ $185.50 ($175 + 10.50 GST) Student Non

Regular (After July 1, 2007)
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A full refund will be provided with written notification prior to July 1, 2007. Between July 1, 2007 and September 1, 2007, an administrative fee of $100 will be charged. After September 1, 2007 there will be no refund, although the registration is transferable.

HOTEL INFORMATION:

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For reservations call **1-800-519-9911**
Please indicate you are with the CAA Conference to receive special rate of $159.00 (traditional room) or $199.00 (Fallsview) before September 15, 2007.
Please note that this rate is subject to the roomblock availability. There is the possibility that the roomblock could fill-up before this date.

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The University of Ottawa Brings Audiology to Zambia

By Mary Wichterle and Christine Turgeon

As students of the audiology program at the University of Ottawa, we were able to live the most incredible, eye-opening, and fulfilling practicum that a student can possibly experience! Our destination: schools, community centres, and orphanages for HIV-positive and vulnerable children in Lusaka, Zambia.

In 2006, the Faculty of Health Sciences at the University of Ottawa launched its research program in international health. The purpose of this program is to expose students at the university to the realities of health and welfare in other countries. Dr. Rachel Thibeault, a long-time researcher in international health and professor of Occupational Therapy at Uof O, was able to convince our professor, Dr. André Marcoux to initiate an international audiology research effort and provide assistance and supervision in Zambia. Dr. Thibeault had traveled to Zambia before and was made aware of the need for hearing health care in that country. Our primary contact in Lusaka would be Sister Margaret Mweshi, a physiotherapist who coordinates a small rehabilitation centre on the grounds of their Cheshire Homes (www.cheshirelondon.ca/ab_international.html) convent. We were also guided in the community by Nbuntu, an organization which facilitates contact between the disabled and vulnerable populations, and various care providers. A fortunate outcome of the high unemployment rate in African countries such as Zambia, is that several unemployed, yet caring individuals, will create a not-for-profit, non-governmental organizations (NGO) and live off meagre donations. While this donation, often obtained from international project groups, is an inadequate compensation for their efforts and devotion, it is often better than the perils of unemployment.

Every effort was made to determine how we should prepare for our journey to Zambia. Were there already audiologists and E.N.T. surgeons in Lusaka? What equipment was being used to assess hearing loss? Were people able to aquire hearing aids? At first, it was very difficult to obtain answers from local sources. There appeared to be a general reluctance to divulge any information. Although some were happy that we would travel to Zambia, they appeared to question the purpose of our trip. Luckily, Dr. George Mencher, a professor at Dalhousie University and long-time member of Hearing International was able to coordinate contact between Dr. Marcoux and Dr. Piet van Hasselt, an E.N.T. surgeon and worker of Christoffel Blindenmission (www.cbmicanada.org), a German NGO. Dr. van Hasselt was no stranger to hearing health care in Lusaka, having conducted several trips to the region to perform urgent surgeries and provide Cheshire Homes with an audiometer, cerumen extraction instruments, and other equipment for the purpose of permitting locally trained nurses to conduct a rudimentary ear clinic twice weekly. Although these services were available, it was Dr. van Hasselt's observation, that they were insufficient for the number of hearing-impaired individuals living in Lusaka. Although we were told that there was one audiologist in the country, he had been missing in action for quite some time. Imagine a country with a population comparable to that of Canada with just one audiologist and three part-time E.N.T. surgeons! Our team was therefore strongly encouraged to travel to Lusaka and help in any way possible.

Armed with an invitation, we needed to arrange some directed fundraising efforts. Dr. Marcoux was instrumental in finding the appropriate funding at the university level. We were also helped by the Ontario Barbershoppers. Sufficient funds were found to pay for our airfare and for purchasing a rechargeable audiometer and a few otoscopes. We were also thrilled to have a portable tympanometer donated to us. Little did we know that this instrument, in the form of a rifle would be the cause of Dr. Marcoux's aggravation at the many airports we visited on our way to Lusaka, but there lies another story all together. Great news also came from the folks at Widex Canada who were able to donate several dozen hearing aids and boxes of batteries. Having heard that there was not a single hearing aid dispensary in Zambia, we knew that these donated hearing aids would be highly valued.

We were happy to rely on Dr. Marcoux's insight to allow a day of preparation prior to commencing our project as much of our luggage, including our audiometer, did not arrive with us, and was said to be enjoying a stopover in Johannesburg, South Africa. Luckily we were ready to begin the next day with clean clothes and all of our diagnostic equipment. It was an emotional day for all as we observe the level of poverty in several sections of the city. We were first driven to a school and community centre for HIV-positive and vulnerable children. It was obvious that most children were wearing donated clothing sent from overseas. Tattered and dirty, they were still proudly worn by these children, who at first glance were not provided with the best chance at life. Regardless of their plight, they were very happy to see us, to answer our questions, and even pose for the camera. While we did diagnose a few significant hearing losses caused by complication of AIDS, such as stroke and encephalitis, most were cased by common middle ear disease. As common antibiotics are not readily available, many children presented with otitis externa, chronic otitis media, or with large perforations of the eardrum. While we were not in

Dr. Marcoux with a group of children waiting for a hearing assessment.

a position to dispense drugs, we did make accommodations for the children to visit the ear clinic at Cheshire Homes, where they would be provided with medication at no cost and the possibility of a follow-up appointment. We spend some exhausting, yet extremely rewarding days with these children. We were often left to reflect when a group of them would chase our van and wave goodbye when leaving the school after each day. It was unsettling for us to see that who we thought were the least fortunate of this world could still manage to laugh and smile despite their numerous struggles.

The Nbuntu group has also put up flyers and announced our project over the loudspeaker of a van going through some of the neighbouring towns. As such, we also welcomed a large number of adults at the school who had concerns with there hearing. The number and types of hearing losses that we were able to see were straight from the pages of our textbooks. A good number of these adults, as well several of the children we assessed, were deemed excellent candidates for receiving some of the Widex hearing aids we had brought with us. We were thrilled to discover that the largest hospital in Lusaka had a small department which was able to manufacture BTE earmolds. Dr. Marcoux was able to spend a day with the technicians at the hospital to provide some training and to instruct them on how to manipulate the trim pots on the digital hearing aids we had brought. Dr. Marcoux, who teaches our advanced amplification course at U of O, was quite discouraged and a little hesitant about the rehabilitation component of our trip. Imagine a one-step fitting procedure which consists of answering a single question: "Does this hearing aid seem to make things more audible?" If the answer is yes, then your fitting was a success! This reflects the present state of affairs in Zambia. In a country that lacks basic health care, audiology is virtually unknown and access, maintenance, and repair of hearing aids have not been the focus of the medical community. Dr. Marcoux spent some time explaining some of the basic functioning of hearing aids to possibly increase the chances of a successful fitting and to decrease the chances of over-amplification. We were not prepared for this challenge and although we were able to donate and fit all of the hearing aids that we brought, we would certainly bring a hearing aid analyzer and would minimally rely on a system to generate 2cc targets for these patients.

One of the most interesting surprises of our trip occurred when we were asked to quickly visit a school of deaf teenagers and young adults near Lusaka. Our first intuition was to kindly decline the trip, based on our

Mary Wichterle with some of the battery-operated equipment.

Christine Turgeon greeting children in the classroom.

assumption that there was little we could do for the profoundly hearing-impaired and the deaf. The hearing aids we had brought could not possibly provide sufficient gain for these individuals. However, we were also told that many Zambians, who not surprisingly rely on traditional medicine as many drugs are not available to them, believe that hearing loss and the inability to communicate verbally is believed to be a curse from the gods. Remembering this ill-fated message, we accepted their offer to pay them a visit. If anything, we could at least have a short talk regarding the causes of hearing loss and the treatments we have available in Canada. We received a hero's welcome. All we anxious to meet with us and were disappointed when they were told that we could only see them one at a time. We never realized, and nor had they, that their verbalizations caused by all the excitement could get so loud. After they were instructed to move away from our testing room, we were happy to start assessing their hearing. How interesting it was to discover that many of them were not deaf at all! Many had but moderately-severe hearing loss and had been labelled as being deaf because of their inability to properly hear spoken language and to develop intelligible speech. We were aghast to conclude that there must be hundreds, if not thousands, of such individuals in Zambia who are living life as a deaf person, simply because of the lack of resources available to diagnose and treat manageable levels of hearing loss. We were certain that the individuals we had diagnosed at this school with such levels of hearing loss would be good candidates to receive some of the hearing aids we brought. They were ecstatic!

What a trip! What truly touched us was the appreciation and gratitude that our patients had for our efforts. Even those whom we could not help to hear better were genuinely grateful that we had taken the time to see them. Medical attention is not readily available for the vast majority of the population in this country and people are happy to receive what they can. A few patients even presented themselves for a "hearing check-up" even though they had no worries about their hearing, other than that they will probably not be able to get it tested again in their lifetime. Looking back, what was the most touching to witness was the state of the children who came to see us. They were always exceptionally well behaved and attentive to the tasks we asked of them. But what shocked us was how small they were for their age. Children who we would have thought were 8 or 9 years old told us they were actually 14 or 15. Clearly nutrition, health care, and awareness of HIV-AIDS are essential concerns that require significant improvement in Zambia. The school at which we tested was proud to inform us that they were able to feed their pupils twice per day and that these children are considered fortunate. Obviously this meant that some children with HIV-AIDS or who were orphaned due to HIV-AIDS were not able to receive two meals per day. It was difficult to witness such human suffering and disadvantage and we often felt completely powerless in the face of these bleak circumstances.

We are very grateful for the experience we gained from our trip. Not only were we able to travel and see a different part of the world, but we felt that we were able to make a positive contribution to the health care efforts in Zambia. We have come away with the feeling that we accomplished something positive and offered some assistance; however small, to people who clearly needed it. Dr. Marcoux has assured us that he would bring attention to the situation in Zambia and provide that country with some of the resources it needs to help the hearing-impaired and those vulnerable to hearing impairment. Hopefully some of his colleagues and future students will be able to travel with him on future projects. Clearly, there is a long road ahead before audiology is established in that country. However, we believe we must start somewhere and that every little effort, such as the one we provided this past summer, counts.

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Taking Patient Satisfaction to the Next Level

By Markus Hilbert

ABSTRACT

Patient care is central to the clinician's core competency. Whatever we do clinically for the patient is guided by our definition and understanding of what constitutes excellent patient care. Part of that will be our training, experience, and desire to implement the latest constructs in standards of practice excellence, objective and subjective diagnostics, and counseling models. Patient satisfaction is also the result of some key habits we can adopt to improve their clinical experience. These practical keys will be outlined in the article. Each clinician will, in the end, find their own combination of tools and approaches to personalize their own excellence in patient care which results in patient satisfaction which in turn results in clinic growth.

If you are in private practice as an owner or clinician employee, the clinical development of your practice should have your undivided attention. If clinic success is critical to your daily outlook, you will automatically ensure that the execution of your professional scope of practice and everything you and your team does will be of the highest standard. If your clinic is not successful, you are not successful, regardless of your position in the company. So, the question is what are some of the keys to making your private practice a success?

The number one answer to that is patient service. We all know patient service and we all do patient service. We pride ourselves on how well we do it. We may even be offended if questioned on how we do patient service. Patient service has become a meaningless cliché because, generally, we either don't know why we do it, or how we measure its results. Here are a few thoughts on how to do patient service, not the way we may think of it traditionally, but in the context of the one professional resource investment you can do that does not cost you any dollars up front but has one of the highest returns on investment: satisfied and loyal patients that refer to you.

All of this is based on some implicit assumptions: knowledgeability and competence, professionalism and common courtesy, and cleanliness and presentability. If the support staff is unknowledgeable, lacking common courtesy and etiquette, and the clinic is cluttered, messy, or disorganized, everything else addressed below can be in place but success will be impeded, and it may reflect poorly on your clinical skills to the patient. To become a successful clinic, patient service needs to be established on the right assumptions. Once the right attitude is achieved, the clinic needs to see itself through its patients' eyes. How easy is it to do business with you? How do your patients define "patient service"? How systemized are your processes from their perspective? Successful clinics view themselves from the outside, translating what makes them great on the inside (internal reality) and marketing that on the outside (external reality) which makes it easy to keep marketing promises, to engage the staff and the consumer, makes them easy to access and transact business with, and makes each visit a fulfillment of expectations because the processes are standardized and both products and services will be the same and the overall experience will be the same or better than delivered at the last visit. Consistency is the key.

Furthermore, a clinic needs to be forward thinking and evolve with trends outside itself. We cannot just go "high-tech" in hearing aid clinics by fitting high-end digital aids if we don't have the computer network, hardware, and software to go with it. We may need to change our processes and even how we communicate as our demographic changes from builders to boomers. Each of these generational groups will have different expectations on what patient service is. If you want to be successful by engaging the patient from their perspective (external reality) of your unique advantages (internal reality) you will need to define patient service according to their definitions, not yours. Patient service would be defined and executed very differently in a clinic serving pediatric patients compared to one serving geriatric patients. Similarly a clinic serving boomers needs to define patient service differently from a clinic serving the older builder generation. Satisfy this expectation and you will be well on your way to creating a clinic with sustainable success.

A successful clinic will adapt and evolve as the times change but never based on fads. Stability is a sign of excellence. When a stable company changes, it is a premeditated, analyzed, and researched response rather

than an ad-hoc, spontaneous adjustment to whatever fad arises which, in turn, characterizes an unstable company.

Finally, an excellent clinic promotes a gratifying and pleasant work environment and the primary vehicle to communicate this is through patient service–how we service patients. I know I'm in the presence of excellence when the patients and the staff genuinely enjoy being there and both make each other's presence more enjoyable. This environment creates interest which is the best form of free marketing because it's the next level of word of mouth referrals. Instead of just saying, "I went to "Clinic X" and service was great, you should try it", a great experience energizes me to tell a story of that great expertise and service, and how everyone needs to check it out. This puts the icing on the proverbial cake of excellence. When we combine the right attitude with the unique internal reality and communicate it consistently to the outside, patients will notice, and the result of this kind of patient service which is genuine and relevant to the patient's demographic context is increased patient loyalty and increased interest which stimulates a virtuous cycle of increased clinic growth. This upward spiral of positive clinical development is the objective.

So what do we do next? Here are some keys to activating this virtuous cycle in your own practice.

Key 1: Take a Pulse

You need to find ways to listen to your patients. What are their needs and expectations? You can use a quality control survey or ask them directly. Engage your patients. Let them feel like they are part of a bigger process and are part of your culture. This is a huge bonus especially to the boomer. They want to belong to something great, as do your professional colleagues and support staff. They interact with patients in ways clinicians and owners do not. Ask them. Then translate that into meaningful, relevant, and purposeful patient service initiatives. When you take the pulse of your patients, ensure that this information is put to productive use. Give people 100% of your attention, ensuring that they are your only interest at the time. Your patients' feedback is the single most important piece of information which will assist you in addressing your patients' needs and resulting satisfaction. The quality of information you glean will be much better. Show you care. Your body language will give you away. To communicate your genuine interest in engaging the patient in productive counseling, you can lean forward and maintain an open body posture by keeping your arms uncrossed, making eye contact, smiling, and rephrasing what you hear back to them. This applies to support staff as well as clinicians. If you are a listener, you will have open senses to see new ideas throughout your day, at the clinic and in your personal experience outside the clinic. The answers you find may be in fields unrelated to audiology but relevant nonetheless. This may include how you're treated at a restaurant, how easy or difficult a retail return is, and what messages you receive from the person and their organization. What can be done better and if something comes to mind, implement it at your own clinic to improve the patient experience.

Key 2: What's in It for Them?

Always engage your patients based on the "what's in it for them" approach. What's really in it for them? Are the things you do as "patient service" really meaningful to them? Do they make the connection between what you're doing and their benefit?

You can anticipate their needs and address them before they think of them. To do this, see things from their point of view. Go through an appointment with a patient or have a friend book in and actually experience your process from beginning to end and share with the team what was great and what wasn't. You'd be surprised about what they may say and the new initiatives you could implement to improve the patient experience.

How about your support staff? If you're talking to your support staff and trying to get them to use open body language, for example, what's in it for them? They need to know why they are doing something different. The answer is: you're going to be received better, you're going to look better, you're going to make us all look better and you're going to grow the clinic. Do you involve your basic administrative staff in this way? Knowing what is in it for them comes down to providing more than just adequate care. By really caring for each patient, with genuine concern for their benefit in the long term, you are not just fulfilling your profession but also growing your practice. To be empathetic and see things from others' point of view is what we are compelled to do as excellent clinicians and the results go far beyond the growth of the clinic. You're making a positive difference in the lives of others.

Key 3: Go Beyond

This is where patient service results in clinic growth. This is the most important key of all. Remember that everyone, including other clinics, does great patient service. It's your job to create a service value intrinsic to your clinical experience that outshines the patient service standard at other clinics. Great patient service builds lasting patient relationships. If you amaze them, and they go home and tell their family or friends about how amazed they were by your service today, patient service at your clinic was successful. Not until you amaze do you achieve great patient service. To really improve your patient service system, you obviously need to consider the whole process that a patient goes through.

Patient service is not just about being nice to patients or general professionalism. Patient service is your opportunity to differentiate yourself from other clinics and put your internal reality, whatever makes you great on the inside, into action so people on the outside can really experience it. This is what you advertise, and it had better be delivered when they choose you. Not coming through on advertising promises amounts to a professional fib at best and a downright lie at worst. So, patient service and its link to your promotional positioning is key. So go beyond the basics and amaze the patient. This is where "word of mouth referrals" has the potential of exploding into great interest.

Key 4: Train, Coach, and Continue Education with Passion

If you want this reality to be a defining factor of your clinic, you will need to get everyone at your clinic on board and on the same

page. You want them to be helpful, courteous, and knowledgeable. But how? Get all of your support and professional staff to greet the patients by name and to give them a reception worthy of a dignitary. For example, ask them if they are comfortable or if you can get them anything. Empower your staff to satisfy needs and wants that patients raise. Have your front staff engage your patients in conversation because people generally enjoy sharing their experiences. Do this for everyone, even for those who are not your favorite patients. Even to those who abuse your service. Everyone is treated with the highest level of treatment all the time. This becomes a standard. The most important aspect about this key to growing your clinic with the patient service tool is to let all support and professional staff know that patient service is intended to grow loyalty, and communicate your competitive advantage. Let them personalize it to their individual style but keep it consistent.

Key 5: Have Standards and Integrity

All of the above keys share a common denominator: integrity. You need integrity to take a pulse and be willing to see things that you may not want to see and act on things you don't want to admit to (Key 1). Integrity will guide you as you determine what is in it for everyone that your clinic connects with, to provide clinic growing patient service at every opportunity (Key 2). Integrity will be required to determine how to go beyond the basics and status quo expectations to really amaze the patient with clinic-growing patient service so your amazement factor is consistent with your promotional messages and your internal reality as a company (Key 3). Training well to achieve a consistent attitude and corporate personality requires integrity on a personal level (Key 4). Integrity is at the root of patient service. You need a company-wide consistent message about service. You need to keep your promises that you make in words, action, and marketing, both in direct and implied statements. Set clear boundaries at the beginning of the patient relationship about how you will deliver what, by whom, and when. You need to set realistic expectations about what's covered and what's not, and how the patient's process will benefit them. Sell them on your unique way of delivering service.

Great patient service is also defined by healthy boundaries. Keep your shirt on and don't become a doormat or pushover to an aggressive patient. Show self respect as an aspect of your integrity. Your patients will respect you in return.

Summary

This approach to patient care acknowledges that honesty is required in counseling to communicate to the patient that you've done all you can to deliver the highest possible level of care. If the patient is not in agreement and is dissatisfied nonetheless, then expectations and needs must be redefined or a referral to another professional considered.

If you implement the kinds of patient service ideas presented here along with following excellent standard of practice guidelines such as measuring subjective benefit from amplification, creating clear goals with tools such as the COSI, and managing consistent follow-up patient care, you will excel at what you do and differentiate yourself from other clinics because your style will make the approach unique. This is the right and ethical thing to do. Great patient service is a tool for building and maintaining the legacy of sustainable clinic success.

Markus Hilbert, B.A., M.S., CCC-A, Aud(C), R.Aud.

Markus Hilbert received his MS at Portland State University. He is currently working towards his Au.D. Mr. Hilbert worked as a private practice Audiologist in BC and Alberta. Once he took over operations at Chinook Hearing Clinics in Calgary he worked towards providing management and clinical tools to reduce costs and increase profitability for small to medium sized dispensing offices through Ear Works Inc. Over the last 5 years he has been active as an advocate of healthy hearing in the media. Mr. Hilbert taught at Grant McEwan College in the Hearing Aid Practitioners program. He also provides physician and pharmacist training in hearing care as well as engaging in international development projects globally. Mr. Hilbert has a wonderful wife and daughter of 2 years and lives in Calgary, Alberta.

BTE Earmold Virtual Modeling and Acoustic Tuning

By Chester Pirzanski

ABSTRACT

This article discusses recent developments in custom BTE earmold fabrication. This includes precise earmold manufacturing and acoustic tuning.

Precise Earmold Manufacturing

Earmolds for BTE hearing aids are physical and acoustic couplers that transmit sound produced by the hearing aid receiver to the eardrum. The shape of a custom earmold is derived from an ear impression that is individually taken from the patient's ear.

Traditional earmold manufacturing includes impression shaping, waxing, investing, and casting the earmold. Earmold carving with a variety of burs and cutters then follows to give the earmold the desired look. When this is completed, the sound bore and vent are drilled and the earmold is buffed and polished to make it more cosmetically appealing.

The objectives in earmold shaping are to make the earmold easy to insert in the ear, to fit comfortably, and to have a secure fit. Most importantly, the earmold must provide a satisfactory acoustic seal to prevent acoustic feedback. Because manual earmold manufacturing strongly depends on the skill level of the technician, the results will vary. While most of earmolds fit satisfactorily, some require modifications and remakes to satisfy the patient.

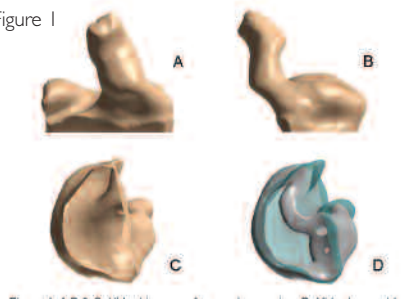
Another objective in earmold shaping is to make an earpiece that will acoustically modify the gain and frequency response of the hearing aid. Unfortunately, the ability of an earmold to provide proper acoustic response is often compromised if the patient's ear canal is small, twisted, and/or narrow. In such situations accommodating a larger vent or a horned sound bore may appear impossible.

In recent years, earmold labs have been experimenting with new digital technologies for manufacturing custom earmolds. The most popular of them is the Stereo Lithographic Apparatus (SLA) method. In this new process, the earmold is created in three stages, which include:

1. Digital impression scanning,
2. Virtual three-dimensional earmold modeling, and
3. Earmold printing in a pool of photosensitive liquid resin, which is the actual process of the mold manufacturing.

Impression scanning and earmold modeling are regarded as highly accurate and able to reproduce the impression into an earmold to the 50-micron level, which is less than the thickness of a single human hair.

Figure 1



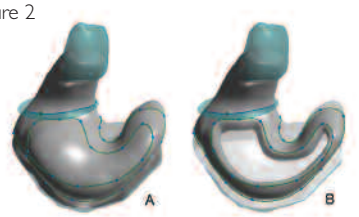
A, B, and C–Virtual images of an ear impression. D–Virtual earmold fitted in the virtual "control mold." Note: All earmold images in Figures 1 to 4 were done with 3Shape software1 and published with permission.

Figure 1 shows images of a virtual impression. The impression is hollow. As such, it can be used as the ear negative to model the earmold and the ear positive to verify the fit of the earmold prior it being printed and sent to the patient.

Virtual modeling with the 3Shape software[1] begins with trimming the length of the canal in the impression. Next, the earmold style is selected and the layout is automatically applied to the impression. The location of each of the blue dots can be adjusted (see **Figure 2**). The main advantage of the modeling process is that all changes are reversible until the modeller approves his/her actions.[2]

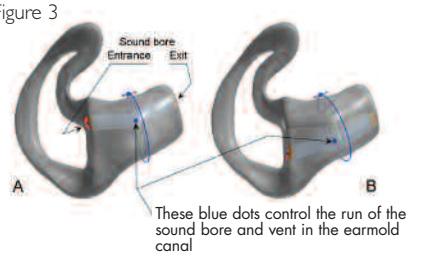
The modeling of the sound bore and vent follow (see **Figure 3**). The sound bore entrance and exit are selected and the run of the bore can be modified by moving the blue dot on the blue disk. The purpose of modeling the sound bore with the angle inside the mold is to have the earmold tube meet precisely with the earhook of the BTE hanging over the ear. The layout of the vent is modelled in a similar fashion.

Figure 2



Oticon skeleton style earmold; A–layout, B–carving.

Figure 3



Oticon skeleton style earmold; A–layout, B–carving.

Earmold Acoustic Tuning

It is known from musical acoustics that the "belling" of a sound channel will enhance a high-frequency signal passing through the bore. The reverse is also true that narrowing of the end of the bore will reduce the high-

frequency component. Virtual earmold modeling offers exciting opportunities in providing patients with acoustically tuned earmolds. This acoustic tuning pertains to the shape and dimensions of the sound bore as well as of the vent.

The Sound Bore

A horn helps overcome the impedance mismatch between the higher acoustic impedance of a receiver and the lower acoustic impedance of the ear canal. One very useful aspect of the horn's response is that there is a boost in signal at 2.7 kHz that will compensate somewhat for insertion loss and help achieve a more natural sound.[3]

The modern small hearing aid receiver is a high impedance source. This means that it generates high sound pressure but can move only a small volume of air. The eardrum is a moderate impedance load. A low impedance load responds to low pressures but requires large air volume movements. An impedance "transformer" is required to efficiently transfer the energy from the receiver to the ear. A horn bore is such a transformer.

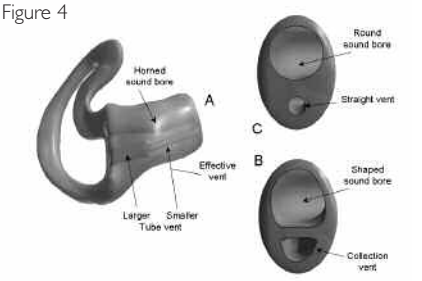
The boost in higher frequencies depends on the ratio of the inside diameter of the earmold tube and the diameter of the horn at the end of the earmold canal. The optimum size for a horn in earmolds is 2 mm at the lateral earmold surface and 4 mm at the earmold canal end. The horn should be 15 mm to 22 mm long. This can be a problem in certain fittings because the canal length available in earmolds is often 20 mm or less. Approximately 10 mm to 12 mm of the 20 mm is used to drill the horn. The remaining length is needed to create retention for the earmold tube to prevent the tubing from being pulled out by the user. If the tube retention area in the earmold is just a few millimetres long then a much stronger glue must be used. This would make the tube stiff and susceptible to breakage, leading to frequent earmold re-tubing.

In virtual earmold modeling these challenges of the horn shape and length can be overcome by modeling the horn for almost the entire canal length (see **Figure 4A**) and using an elbow securely mounted in the lateral earmold surface with the earmold tubing attached. The horn does not have to be circular to produce the horn effect. It can be oval or modeled in a shape that can be best accommodated on the earmold canal medial end, as shown in Figure 4B and C. With a properly modeled horn, the improvement in higher frequencies can be 10 to 12 Db.[4]

Vent

A vent in an earmold is a channel that allows for exchange of air between the inside and outside of the ear canal. This exchange helps avoid excessive moisture buildup. In addition, vents allow low frequency sounds out of the ear canal and low frequency sounds in the ear canal to reach the residual ear canal volume without passing through the hearing aid amplifier.

Figure 4



Options in modeling and acoustically tuned earmold.

A vent is a column of air. Air, like other substances, has mass, and therefore has inertia. For a vent to transmit sound, this inertia has to be overcome. Overcoming inertia is much easier for small masses than for larger masses.

In manual earmold manufacturing, the vent mass is controlled by the diameter of the vent. The larger the diameter, the less inertia and the easier the transmission of low frequency sounds through the vent. This approach creates challenges. Larger vents cannot be accommodated in earmolds with narrow canals.

In virtual modeling, the vent can be modeled as two tubes with different length and diameters. The tube with the smaller diameter is connected with the canal end, the larger tube with the earmold later surface. By lengthening the larger diameter tube, the air mass in the smaller tube is reduced and the vent acoustic effectiveness increased. For example, a 1.4 mm vent 9 mm long has the same acoustic effect as a 2.3 mm vent 20 millimetres long. For an even more effective venting, the vent can be modelled "collection" as provided in Figure 4C, a vent style commonly used in custom in-the-ear Oticon hearing aids.

Summary

With the introduction of the new digital impression scanning and virtual earmold modeling, the manufacturing of custom earmolds for behind-the-ear (BTE) hearing aids has been raised to a new level. This includes manufacturing earmolds that are comfortable, are feedback and occlusion free, and have a better acoustic response.

To learn more about earmolds manufactured by Oticon Canada call Customer Service or contact your Sales Representative.

Chester Pirzanski, BSc, is senior supervisor for shell & earmold manufacturing with Oticon Canada, Kitchener, Ontario. E-mail cp@oticon.ca

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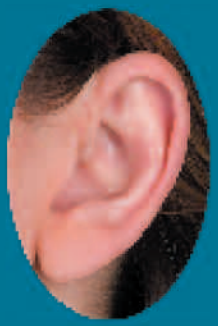
Beltone EDGE|action

Beltone EDGE 2



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