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MCH and Internet Literacy

Introduction

Have you heard of the Ford Motor Company's offer to purchase desktop computers and inexpensive Internet access for all 350,000 employees world-wide? Ford instigated this program in February 2000. Chairman Bill Ford said, "It is clear that individuals and companies that want to be successful in the 21st century will need to be leaders in using the Internet and related technology." Ford hopes the estimated $300 million cost will be quickly offset by gains in making all its employees computer literate. Ford is not the only organization moving in this direction. And the reasons for this move are just as important for those in fields outside of business.

Health practitioners will need to be computer and Internet literate as well. Not only will you have to know how to purchase a computer, but you will have to know how to make that computer work properly, which software to purchase to do your work, the sometimes obscure terminology associated with both the hardware and the software, and how to multi-task. With this edition of *Northwest Bulletin* and the fall edition, we would like to address how these issues relate to MCH practice and technology. In this edition we will discuss the pros and cons of computer technology, how technology is being used in the region, and provide some resources for improving both access and skills. We are fortunate to have the assistance of Laura Larsson, who is serving as our guest editor and "techie" guide in developing the "How-to" materials included. She is the Director of Information Services for Health Services in the School of Public Health at the University of Washington. Laura is also the Listowner: PHNUTR-L, PHSW, PNWHEALTH, PHNURSES, APHA-PLAN, and HSR-L, all discussion list serves.

Technology: Opportunities and Barriers for MCH

by Michelle Bell and Carolyn Gleason

The technology revolution… is it really such a phenomenon? One only needs to think back five years to realize the answer, a resounding "Yes!" Just think about it… A Medline search takes seconds and is free. Grant announcements are available on your desktop the same day they are published in the Federal Register. Documents can be distributed to multiple recipients in less than a day, with no photocopying, collating, or postage.

Indeed, the revolution has radically altered our personal and professional lives - the way we work, learn, access information, even communicate with each other. E-mail has become almost as ubiquitous as the telephone, and the World Wide Web has become a virtual library at our fingertips as well as a major communication, marketing, and research tool.

Technology in its best use is a tool to improve work, the workplace, and the services/products developed. The office network allows employees to share calendars, files, and documents, and to communicate with amazing efficiency. *The network technology has led to expanded use of worker telecommuting, or access to essential office functions from home.* Mobile computing has become commonplace, as computers and related components have been miniaturized. The "paperless office" concept has become a partial reality, as high-capacity electronic storage devices have become affordable. Personal digital assistants such as the popular Palm series allow staff to carry massive amounts of information in gadgets smaller than a paperback.

Video equipment connected to high-speed phone lines and cables have made virtual conferencing and telemedicine commonplace

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A Technology Glossary

Among NWB readers, board members, and authors of this issue familiarity with terms varied, so we hope this glossary will assist everyone.

Bulletin Board (BBS): A place to post message and information that anyone with access to the board is free to read or to respond. BBS are used less now, List serves or discussion groups being more popular.

Browser: Also known as a Web browser. It is a program that locates and displays Web pages. The most commonly used browsers are Netscape Navigator and Microsoft Internet Explorer. They are graphical browsers: they can display graphics as well as text.

Boolean Logic: A system for searching and retrieving information by using and combining terms such as AND, OR, and NOT to sort data.

email: electronic mail, a way to send text from one place to another.

Internet: A network of networks of computers running the same protocol (way of communication data). Computers can connect to this network to send data.

Hypertext: A system of writing and displaying text that enables the text to be linked in multiple ways, to be available at several levels of detail, and to contain links to related documents. The World Wide Web uses hypertext transfer protocol (HTTP) to provide links to pages and files.

List serves: An automated mailing list distribution system used for mass emailing. Many lists are discussion groups. Members converse by e-mails about topics pertinent to the List. There are Lists for almost any topic and many patients, particularly with chronic disease, are members of Lists. To find a List, go to any search directory and search for "List serve" or go to a directory of List servs such as http://www.lists.com/. Laura Larsson, our guest editor, is the owner of several List for health professionals. (See Introduction page 1.)

Search: The process of looking up information on the internet.

Search Engine: A program which acts as a card catalog for the Internet. These programs use another program to locate desired information and indexes it by key words. The user of the search engine finds information by looking at all the items indexed to the keyword. Search engines can be inefficient and quite frustrating if the user doesn't know how to use them correctly.   Also, different engines are good for different kinds of searches. Always read the "Advanced Search" section of the engine's Web site.

Search Directory: A search engine is not a search directory. A directory makes use of human judgement at some point, which means better sorting. It is not uncommon for an engine to show 150,000 links most of which seem unrelated. The directory will commonly come back with fewer, but more relevant links that are better sorted.

Software: any program or collection of instructions that causes a computer to perform a specific group of tasks.

URL: Uniform Resource Locator, address for Wide World Web sites

Webmaster: The Webmaster is the person to which all feedback and correspondence for a Web site is usually sent. This person is responsible for having the website maintained and may be the person who built the Web site.

Editorial

Technology and Northwest Bulletin

by Penny O'Leary, Laura Larsson, Michelle Bell, and Carolyn Gleason

The variety of members on the *Northwest Bulletin* (NWB) editorial board bring to the NWB and to the readership opportunities to see the newest innovations in MCH. This varied membership also brings news of developing issues within our professions and the communities we serve. The decision to publish both this issue of *Northwest Bulletin* and the upcoming issue on Telehealth comes from a growing concern among *Northwest Bulletin's* staff and editorial board. As a group, the Board has become increasingly aware of the growing differences between the "techies" and "non-techies." As individuals, representatives of individual agencies, and representatives of larger groups of providers, the editorial board is concerned that these "differences" are creating a new set of "haves" and "have nots." People and agencies who have access to technology (hardware, software and MOST important, the skills to use them) are getting more done. They have increased access to resources to do the job, and that access, may be increasing their funding and ability to do a better job. At NWB, we believe the solutions to these problems begin with the development of a plan to get and use the technology that best fits the goals and objectives of your particular program or project.

We are proceeding with this approach for our newsletter. With this issue, the NWB ventures onto the World Wide Web. This will expand our readership beyond the Northwest and bring new opportunities to many readers who are already facile with accessing and using web resources. Eventually, this will also remove the limitations of a paper vehicle. Articles can be as long as they need to be and often take the reader directly to references or resources highlighted in the article. We realize, however, that many of our readers are not fully connected to the web at this time. We will state right up front that our goal is to assist everyone in achieving capacity that will permit full use of the web for information sharing and continuing education. Until that goal is reached, we will also continue to distribute the print version of NWB.

Our challenge to all MCH professionals is to begin this process. Start now on a regular basis as an individual, in project groups, and in agencies. What hardware, software, skills do you have? What do you need? How are you going to find them, get them, and implement them? What policies, beliefs, and attitudes must be changed to find the support to find the hardware, software, and, particularly, the skills?

Change is not easy. In some cases, change involves admitting that there are things we don't know how to do. Doing them, or learning to do them, may involve activities we dislike or are uncomfortable with. Our excuses and reasonings are often similar to those clients give for not getting vaccinations. "It might (will) hurt!" Well, like vaccinations, becoming 'technological' isn't always comfortable and occasionally might hurt (Though, like the shot-giver, we hope it only hurts a little!). However, the alternative is the potential loss of the ability to function as a growing, productive member of the society.

Examine your attitudes and beliefs and those of your workplace. You know the reasons for avoiding technological change. "We don't have the money," "We don't know how," and "We don't have the time to be playing around!"

- **Funding:** There may be ways to find the money or it may not take as much as you think. Many technologies are becoming cheaper and their use may save money in other places or just save money in the long run. It is worth investigating.

- **Skill/Knowledge:** Training is available in a variety of formats; books, teleconferences, on-line classes and tutorials, community colleges, training vendors, etc.

- **Playing at the Computer:** Change your attitude. Learn one new thing each day about your computer or the programs on it. What you don't know can hold you back.

- **Time:** MAKE THE TIME! Every day take a few minutes to examine where you are in the technological world. Look for a way to at least maintain if not improve your position. Make a plan for your self to improve daily. Set aside a regular time (at least monthly) in your workplaces to participate in the examination, development, and implementation of policies and procedures to keep your group or agency in the best possible position to continue your mission.

The coming of technology is a striking example of change theory. The "techies" are the innovators and early adopters. We, at *Northwest Bulletin,* believe that no one in MCH can afford to be the laggers. Using technological tools is the future, and our only choice is be an adopter. NWB is committed to doing all it can to become a vehicle for adoption of this change. NWB will list MCH-related websites, continuing education opportunities, listserves, and other resources in each issue. The NWB will attempt to address hardware, software and training challenges by providing information on low-cost options. We encourage the readership to send questions by email via our website: http://depts.washington.edu/nwbfch/ .

We will all have to work on addressing policies in the workplace that limit our ability to make use of technological resources, particularly the internet resources in our daily work activities. Most importantly, we all have the task of increasing awareness of this enormous set of tools and their potential for doing our work for the MCH community better, faster, and more efficiently. If we don't, we will all get left in cyber-dust! And so will our clients!

Technology: Opportunities and Barriers for MCH, continued from page 1

throughout the nation. Satellites have been used for years for distance education, but privatization and improved technology, the same advances that have brought satellite TV to millions of homes, promise to bring satellite conferencing and educational events to the desktop. Digital technology for "still" and video cameras has begun to make photos, graphics and videos as common in web and e-mail communications as text. Finally, the next phase of the revolution promises to be wireless technology. Until recently, a big limitation of electronic communication and web access has been dependence on phone lines or cable. Wireless connections will free the worker to use email, the web, and other virtual devices anywhere, any time. The best example of emerging wireless capabilities is the cell phone that has built-in web and email access.

In MCH, and most other disciplines, the impact of technology on our professional lives also has its down sides.

More Work: Technology has never promised to reduce our work loads. As a matter of fact, it is guaranteed to create more work and make that work more complex as it expands the capabilities of and expectations of every worker.

Costly: Investment in technology infrastructure, including hardware, software, and connectivity, is costly, but only at the beginning. Upgrades and monthly connection charges can be overwhelming. Also, we all know that the system we purchase today will be available for half the price within a year.

Too Much: Many of us fall victim to info-glut; the barrage of 100 email messages in a day or the thousands of "matches" to a web search can become overwhelming. What to read and save, and when to use that scary "delete" key, especially when the computer responds, "Are you sure…?" is a dilemma.

Potential for Misuse: In many organizations, management has been reluctant to build networks and access to the Internet, fearing the increased temptation for workers to use it for personal endeavors, wasting time, or even more serious violations, such as viewing pornography. Additional fears include the reliance on error-prone technology and one or a limited few 'technology' staff for critical work functions and documents. Who hasn't experienced the dreaded computer lockup, virus, or hard drive crash that devastates your work?

Varying Skills in the Workforce: Technology has brought rapid, major change to the workplace and different people respond to change differently. This has created a wide variation in worker skills and abilities to use technology, hampering efforts to take full advantage of its promises.

Reducing personal contact: It has been argued that technology has made the workplace and our lives more impersonal, as we spend much of our time with our computers instead of with colleagues and customers. However, this "impersonal" argument can be disputed, as electronic communications have opened workers to rapid, even "real time" exchange of information, ideas, and collaboration via electronic media.

Increasing the Divide: There is concern that the widespread use and reliance on technology creates disparities between the technological "haves" and "have-nots." For those who decline or are unable to use the latest technological advances, a chasm of communication and information access develops between them and their more connected colleagues.

Liability: Concerns about privacy, confidentiality, and legal issues are quite valid and complex.

Crime: Finally, the threat of cyber-crime, in the form of hackers and viruses, is very serious and has created the need for constant, expensive protection measures.

All of the technological options, with their pros and cons, can be overwhelming. What should the MCH professional do? Closely study both the technology available and the current personal and agency capacity for technology. Then, move forward in a rational manner.

The world wide web offers vast opportunities for timely updating of information, sharing of resources, networking, and dialogue among the MCH community in the Northwest and beyond. Practitioners at all levels can gain quick access to data, statistics, policy analyses, and research reports that are relevant to their information needs. Literature searches on current research can be done quickly and easily from any site, including the many remote locations in our region. Use of these internet resources is especially important in these days of limited travel to conferences and other educational events.

For some, however, the web remains an unaccessible domain for several reasons. Lack of hardware or software that will permit use of web resources. Outdated or low capacity computers, or the necessity to share computers with several co-workers, affects the ability of some professionals to make full use of web resources on their jobs. Lack of technical skills, "computer phobia," or lack of technical support or assistance limits others. Policies restricting or forbidding employee use of the internet, and the perception among some employers that use of the internet is "playing" on company time, present additional barriers to full use of this timesaving resource.

But in the final analysis, technology is here to stay. It is the future. What must be done now is to develop and implement strategies to overcome the barriers.

Introducing Northwest Bulletin Online - A Tutorial

by Laura Larsson, University of Washington

The *Northwest Bulletin: Family and Community Health*, has been published for 14 years and is currently distributed to approximately 4500 people in and out of Region X via the U.S. Postal Service. Furthermore, years ago, paper copies were more than acceptable. Times have changed, however. Not only is it getting expensive to distribute newsletters on paper but in this digital age people who receive the *Bulletin* on paper have indicated that they also want to gain access to an electronic version. From now, on NWB will be distributed simultaneously on paper and on the Web.

We have begun to convert past issues of the *Northwest Bulletin: Family and Community Health* into Web documents. Laura Larsson, Director of Information Services, School of Public Health, University of Washington, applied for and mounted a Website. A home page has been created and mounted. New issues will be added as they appear. Older issues will be put into an accessible archive on the site as time permits.

What does this mean to you? Current and past issues on topics of interest will now be available 24 hours a day, 7 days a week, 365 days a year. You will no longer have to keep past issues since you can be assured that they will be accessible anytime you want them. You will be able to type in the "URL" (Uniform Resource Locator, or address), select the issue you want, and either read it on line or print it. It also means that any URL mentioned in any article will become an active "hypertext" link able to take you directly to the cited Website so that you can explore what's available there.

As the repository of issues grows, a subject and a title index to articles will be developed so that you don't have to search through all the issues one by one to find the single article you need. Once all the issues are available on-line and the indexes completed, this site will be a rich repository of articles of interest to MCH practitioners.

How to do it!

Finding the *Northwest Bulletin: Family and Child Health* Website is not difficult. First, remember our initials NWBFCH and then open your browser (Netscape or Microsoft Internet Explorer).

In the Location text box type the URL (address): http://depts.washington.edu/nwbfch/ . This URL tells you that this is a departmental site located at the University of Washington. The "edu" tells you that the site is an educational institution as opposed to a "com" (commercial / business) site, a "mil" (military) site, "org" (association or organization) - or a site from a different country such as "ca" (Canada) or "mx" (Mexico); nwbfch is the specific folder or subdirectory on the mainframe computer at the University where the site is stored.

Be sure that you do not use capital letters for any character that you key in as the computer where this site is stored sees capital letters as being very different and will return a 404 error.

HINT: *404 errors tell you that the page you are looking for doesn't exist. When you see a 404 error look for spelling mistakes in the URL. The most common mistakes are leaving off (or adding) the l (ell) in .html, the file extension. If everything looks correct, assume that the page has been reorganized on the site and that you haven't made a mistake. We will not be moving content around on the NWBFCH Website.*

Home Page and Navigation Bar:
The initial page that you see when you key in a URL is called the "home" page because nearly every page will link back to this page and because it is the opening page for the site. When you visit a new site, take a moment or two to orient yourself. Notice where the navigation bars are, if there are any graphics, and whether graphics or logos have been included. Navigation bars are hypertext links to content (other documents) on the site.

As you look at the navigation bar on the NWBFCH home page you will see that it is located on the left side of the page. The NWBFCH logo is displayed prominently at the top of the page. Under the navigation bar you will find graphics and hypertext links for HRSA (Health Resources and Services Administration) and MCHB (Maternal and Child Health Bureau).

To move through the links – those blue, underlined, sections of text – simply put your cursor over the link. Note that your cursor that looked like an arrow now turns to a pointing hand. Once you see that pointing hand, click your left mouse to view the linked document. Try not to move your mouse as you click.

Other features on the navigation bar include a "mailto," the date of last revision and a URL typed in at the bottom of each page. The "mailto" is a feature that enables you to contact the Webmaster if you have questions about the content on any page. When you click on Larsson's name, a form will pop up that will enable you to send an email message to her. The URL makes it easier for you to cite a specific Web page if you use it in an article. Just highlight, copy, and paste the citation into your word processed document.

Now sit down and try it!

Sites that Build Computer Competencies

Buying & Maintaining a Computer

Compaq
http://www.compaq.com/

Dell
http://www.dell.com

Gateway
http://www.gw2k.com/home/

Intel Corp.: Buyer's Guide Home Page. Find the PC That's Just Right for You. http://www.intel.com/apac/eng/home/shop/pentiumiii/index.htm

De Groot, Paul. The Computer Beginner's Home Page. http://www.southam.com/nmc/guide/computips/complist.html

Krauss, Dave. Dave's Guide to Buying a Home Computer. 1995-2000. http://www.css.msu.edu/PC-Guide/

Webopedia: Online Computer Dictionary for Internet Terms and Technical Support. http://www.pcwebopedia.com/

ZDNet: http://www.zdnet.com/

C/Net: http://www.cnet.com/

Improving Desktop and Internet Competencies

Larsson, Laura. Digital Literacy Checklist. 1997-2000. http://depts.washington.edu/hserv/teaching/diglit/diglit.htm

Smith, Jan. Jan's Illustrated Computer Literacy 101 Course. 02/17/00. http://www.jegs1.usit.com/Lessons/lessonintro.htm

Knowledge Management for Health Services Weblinks Page. http://courses.washington.edu/~hs590a/weblinks/weblinks.html

Learn Online with ActDen. The Digital Education Network. http://www.actden.com/

StudyWeb: Computer_Science: Computer Literacy. February 14, 2000/ http://www.studyweb.com/Computer_Science//

Search Engines
Google: http://www.google.com
HotBot: http://www.hotbot.com

Search Directory
Yahoo.com: http://www.yahoo.com

Competency Building Tutorials on the Web

by Laura Larsson, Health Services, University of Washington

Knowing where to go to purchase a home or office computer and deciding what configuration to buy can be unsettling if it's your first time. Building a generalized knowledge of how your computer works is important so that you know what to do if something goes wrong. Understanding how the software you own functions will help you work more efficiently. In this article we are discussing the best places to visit on the Web to buy a computer, maintain it, and find software hints, tips, and tutorials - tips that will make you more productive in your day-to-day work.

Buying and Maintaining A Computer

It's generally not too difficult to find tutorials on how to purchase a computer. Most of the large computer retailers have tutorials. Dell, Gateway, HP, Compaq - and even chip makers like Intel provide hints for purchasing a computer. Other retailers also provide "how-to" information.

Others with no desire to sell computers, but with a great desire to help you understand how computers work can provide both technical and understandable descriptions of what your computer does and how it works. One of my favorites is a rather plain vanilla site authored by Paul De Groot titled, *The Computer Beginner's Home Page*. De Groot covers the basics (How does a computer work? What is the difference between hardware and software?), hardware (How large a hard disk should I buy? What is a serial or parallel port?), software (What do version numbers mean on a program?), problems, communicating, and buying a computer. The information is slightly dated, but still useful.

A more up-to-date document is Dave Krausses' Dave's Guide to Buying a Home Computer. This page was started in 1995 but is updated constantly. Dave, at Michigan State Library, has

incorporated such topics as: Things to Consider Before Buying a Computer, SIMM and DIMM memory, What Type of Configuration Do You Need? Salesmen, WebTV, Computer Superstores and Other Outlets.

Many computer sales sites have a small section on computer terminology, however, many computer folks prefer to use *Webopedia*. This is a Web dictionary/encyclopedia that has the most up-to-date computer terminology.

ZDNet's series of articles on buying a laptop are designed to help the user decide what they need in a laptop. ZDNet, my favorite site, will also send you a series of hints and tips via an electronic newsletter and will alert you to new advances in the computer and software field. C|Net, another computer and software publisher has many thousands of pages of articles on how to better use and maintain your computer.

Improving Desktop and Internet Competencies

Once you have your computer on your desk and assembled, you'll want to explore the software that comes with it. At the very least, you should have acquired an office suite for creating content, communication software so that you can do email, and a browser such as Internet Explorer (MSIE) or Netscape Communicator so that you can surf the Web. But - just because you've acquired this software doesn't automatically make you an expert in its use. There's a lot of learning required to feel competent in using these tools.

What desktop and Internet skills do you need to be able to survive in this information age? I have given the topic of desktop and Internet competencies a lot of thought. I created a Web document titled, "Digital Literacy Checklist" that lists 67 competencies. Digital literacy is "the ability to understand and

Using Medline from the National Library of Medicine

by Laura Larsson,Director of Information Services, University of Washington

While there is a plethora of online bibliographic databases that a public health practitioner can use to search for the latest research and practice articles, many believe that the National Library of Medicine's (NLM) Medline database is probably the best in the world. It is certainly the database of choice for medical librarians because of its excellence in indexing and for the speed with which citations to journal articles are made available in the database.

Not only does the database provide bibliographic citations for over 4,000 biomedical journals published in the United States and 70 other countries. The file contains citations and abstracts to over 10 million biomedical, health services and public health journals, and is now linking to publishers offering full text articles. The database has a relatively simple interface but, as with any complex system, retrieval of exactly what you are looking for is considerably improved when the "help" documents are studied - or if you have the opportunity to take one of the free classes that are offered by staff from the regional libraries known as the National Network of Libraries of Medicine (NN/LM).

In these training sessions, NN/LM staff provide workshop participants with an introduction to MEDLINE, to the MeSH Vocabulary (the 18,000 subject headings used by indexers to categorize each article), and to Boolean Logic (the use of AND, OR and NOT to combine concepts to refine searches).

For those who prefer to learn by doing, the NLM Help pages and accompanying documentation are worth reading. In the Help document you will find suggestions for improving your searches for authors, journal titles, truncation (where you use a wild card such as the * to get plurals or parts of words, e.g., wom*n) and searching for phrases. The Help document discusses how to display, save, and print the citations of special interest to you and explains how to use the "Related Articles" link. Of increasing interest to users of this database is the LinkOut to full text documents (books and journal articles) that NLM has linked from the citation. (Note: User registration, a subscription fee, or some other type of fee may be required to access the full text of articles in some journals using this feature.)

If you do not live within driving distance of a medical library but would like copies of articles that are not available through LinkOut, the "Order" feature allows you to request the full-text copy of an article from a library in your area using the Order Documents ("Loansome Doc") feature of PubMed. Before you can use this feature you must first have established an agreement with a Loansome Doc participating library and have agreed to pay any fees resulting from your requests for articles. Basically, you set up an account with a lending library; the library bills you for each article. Costs for this service are very reasonable when you consider how valuable your time is. Information about libraries that participate in this service can be obtained by calling 1-800-338-RMLS (7657), Monday-Friday, 8:30 A.M. - 5:00 P.M.

You will quickly grow to love certain features in the Entrez version of Medline. My favorite is the Citation Matcher for single or batch articles. This feature enables you to enter bits and pieces of citations such as author and year of publication, or author and initial page number. You will find this feature most useful when you go to conferences and seminars and the speaker gives you minimal information on the references she has used to build her talk.

I often use PubMed's Journal Browser to search for specific journals. The Journal Browser (available on the PubMed's sidebar) allows you to look up a journal by title or by the MEDLINE journal abbreviation and search for citations from that journal. Since NLM is usually pretty good about getting tables of content into the database quickly, this is a great way to get tables of content from your favorite journals. Think about running a search and bookmarking the search to have pre-run searches already done for you.

If you are curious about the list of journals indexed by Medline, you can download the entire list in four different formats (Uncompressed, GNU zip, UNIX Compress or PKZIP) from the Batch Citation Matcher.

References
National Library of Medicine's Home Page.
http://www.nlm.nih.gov/
NN/LM Pacific Northwest

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http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed
Medline Help File. January 19, 2000
http://www.ncbi.nlm.nih.gov:80/entrez/query/static/help/pmhelp.html
Medline FAQ
http://www.nlm.nih.gov/pubs/techbull/tb.html
Medline Plus Health Information
http://www.nlm.nih.gov/medlineplus/
NLM PubMed Training Manuals
http://www.nlm.nih.gov/pubs/web_based.html
NLM Technical Bulletin
http://www.nlm.nih.gov/pubs/techbull/tb.html
NLM Batch Citation Matcher (journals indexed by NLM via FTP)
http://www.ncbi.nlm.nih.gov/PubMed/citmatch.html

Alaska Reports

Health Alert Network

by Alice Rarig and Patty Owen

Access to public health information and public health training and distance learning is being enhanced in Alaska through the **Health Alert Network (HAN)** project funded by the Centers for Disease Control and Prevention.

While the HAN funds are primarily linked to Bioterrorism Preparedness and Planning, the state Department of Health and Social Services will be able to establish and maintain a Health Alert Network that will support exchange of key information over the Internet, training of health workers, assurance of organizational capacity to respond to bioterrorism and other health threats, and provide for rapid dissemination of public health advisories.

The goals of the Health Alert Network are:

· To connect all local public health localities to the Internet via continuous, high-speed, secure connections; to ensure proper training of local health department workers in the use of this information technology; and to make available on-line information resources for public health.

· To develop a system for rapid receipt and broadcast of health alerts, surveillance data, and other information related to urgent health messages among government officials, community health care providers, first responders, and others.

· To establish a comprehensive distance-learning infrastructure available to enhance core workforce development among public health workers, and to use this infrastructure to assure skills and competencies in timely public health issues.

Alaska's Health Education Library

by Alice Rarig and Patty Owen
The **Alaska Health Education Library Project (AHELP)** is another project funded by the Centers for Disease Control Prevention and coordinated by the Alaska Division of Public Health. It will provide health professionals easy access to health information resources via the Internet. Soon to be a website, this site will offer a clearinghouse of health promotion/chronic disease prevention information on programs, materials, and resources available in Alaska.

Over the next year, the Alaska Telehealth Advisory Council will report Alaska's telehealth/telemedicine and telecommunication improvements on its website: http://www.hss.state.ak.us/atac

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Oregon Report

Summary of Oregon's Immunization ALERT

by Barbara Canavan,
Oregon's Immunization ALERT is an electronic database that holds data from more than 625,000 children (unduplicated estimate) with information on 7.5 million immunizations. The ALERT registry is available for use by health care providers statewide.

ALERT collects immunization information from both the public and private sectors and combines it into one record for each child. About 96% of Oregon children under age three have records in ALERT. Providers have access to children's immunization records, regardless of where children received their shots. 78% of private providers and 97% of public clinics in Oregon send data to ALERT on a regular basis.

ALERT data can be accessed by calling, faxing, or emailing a list of children to check. ALERT sends immunization histories back to enrolled providers. Providers not currently enrolled can do so quickly. The Customer Services Team has responded to over 7,000 phone/fax and 100,000 electronic requests for child immunization histories. ALERT plans to develop secure Internet access to the data during Year 2000 for authorized users.

In 1999, ALERT expanded by 50% through new electronic imports of immunization records into the registry, including 2 million immunizations from Kaiser. ALERT distributed 65,000 parent brochures. A Spanish version brochure is pending.

With about 96% of children under age three in the database, ALERT helps practitioners provide improved immunization services. Immunization History Reports show all immunizations a child has received and what immunizations are due or complete. Parents are contacted and reminded when children are due for immunizations.

Washington Report

Quality Improvement Reports: ALERT data feed directly into an automated assessment program to measure clinic immunization rates and practices. In 1999, ALERT data was used to assess the immunization status for over 400,000 Oregon children from private and public clinics. Use of ALERT data for these measures improves plan rates by 11% to 32%.

School/child care reports: ALERT communicated directly with over 1,200 Oregon day care centers, offering assistance in identifying and assessing the immunization status of children under their care. 10% responded.

The ALERT-OMAP project provides supporting studies and statistics to OMAP about how Oregon is achieving immunization goals. ALERT helps OMAP establish benchmarks and track accountability measures.

Providers can use ALERT to **c**onsolidate immunizations from all providers into one record for each child. They can also identify high risk and under-immunized populations. Clinics and managed care facilities can generate immunization coverage reports. Providers can also use ALERT to produce reminders and recalls for children who need immunizations.

Focus for Year 2000
- Continue use of ALERT data for clinic assessment with special focus on Oregon regions or clinics that may have lower immunization rates.
- Expand the use of Reminders and Recalls from ALERT to contact parents of children who are due for immunizations.

For more information contact:
www.immalert.org Oregon Immunization ALERT 1-800-980-9431, 1-503-731-3042 FAX, 800 NE Oregon Street, Suite 370, Portland, OR 97232
OHD.ALERT@state.or.us

Barbara is the ALERT Manager for the Oregon Health Division.

CHILD Profile goes electronic!

by Ruth Francis Williams,

For the past seven years, CHILD Profile, Washington State's health promotion and immunization registry system, has helped to ensure that Washington's children receive needed preventive health services.

The health promotion component which includes educational materials providing parents with age-specific information on health, safety and development, helps parents make decisions about their child's health. Letters are mailed at key well-child visit dates from birth through age six to remind parents about scheduling immunizations and regular check-ups. The immunization registry component is a tool for health care providers which allows them to access their patients' immunization information in a shared, secure database. With a fully populated system, every participating health care provider has access to accurate and current client-specific immunization information and immunization recommendations. This helps to improve provider's quality of care by: increasing the likelihood of timely immunization, avoiding duplication of immunizations, and helping clinical operations become more efficient.

The CHILD Profile website is another vehicle that both parents and providers can use to access current health information on growth, development, safety, nutrition, environmental health, childcare and other issues. Parents can tap into the most recent information on early brain development and community resources. Providers can 'sample' a demonstration of the registry.

Visit CHILD Profile at http://www.childprofile.org

Technology: Washington State

Where has INPHO gone?

For those of you familiar with the old INPHO system (Information Network for Public Health Officials), plans are in process for a new and improved system. The Inter-Governmental Network (IGN) is an eight level security model that provides security for information communicated across internet-based networks. This means that a variety of public entities that communicate identifiable information can be assured that their information is secure and confidential. These entities include public health and their part-ners, criminal justice, social agencies, Indian Tribes, municipalities, as well as a number of other government agencies and public institutions

This new technology gives public health the opportunity to access and analyze sensitive data more efficiently. The eight progressive security levels vary from IGN-SL0, which allows public access to a Web Server with controlled access to the Internet, to IGN-SL7, which provides a certified Virtual Private Network with direct remote access to DOH's internal network. Each level enhances the lower security levels by enforcing requirements for data encryption, user authentication, and discrete communication channels.

For detailed information on the Washington State Inter-Governmental Network Security Plan see the full document at http://www.doh.wa.gov/publicat/IGNsec.doc

Idaho Report

Idaho's Voluntary Immunization Registry

By the Idaho Immunization Registry Project

As a result of legislation signed by Governor Dirk Kempthorne in March 1999, the state of Idaho has begun an ambitious effort to protect children from vaccine preventable diseases through the creation of a voluntary childhood immunization registry. This effort is part of the Governor's comprehensive initiative known as the *"Generation of the Child,"* designed to take a broad, long-term approach to assuring healthy infants, children, adults, and communities.

Low rates of immunization in a community create the ideal environment for disease outbreaks, which have occurred in virtually all states. Idaho experienced a significant outbreak of pertussis (or whooping cough) in 1997-98, which stirred action on a number of fronts. This included the creation of the Idaho Immunize by Two coalition, which brought together health care providers from many sectors to address this problem. One strategy, the creation of a statewide registry for childhood immunization records, was hampered due to a lack of coordination and a consolidated plan. The recently passed legislation authorizing the creation of a voluntary state immunization registry has helped to catalyze this new effort.

Childhood immunizations are no longer exclusively provided by public health departments, as was once the case. Changes in the health care delivery system have shifted this responsibility to private medical providers. In Idaho, an almost three-fold increase has occurred, from 25% of private physicians administering immunizations in 1994, to almost 70% by 1999. This market shift means that there are now more places where a child can be immunized, but it is more difficult to obtain a reliable copy of the child's immunization history to determine his or her current status. Immunization registries are designed to address this problem.

After a three month study, a project plan was unveiled that was the result of numerous interviews with medical providers, public health personnel, and representatives from health insurance organizations. The study also included a review of various technical alternatives, and the recently passed state law authorizing the registry, in order to develop a plan that is appropriate for Idaho. Full implementation will take approximately two years. It includes links to various data systems, distribution of software to physician's offices, and technical support. Specific written authorization of a parent or guardian is required by state statute to enter a child's name in the voluntary registry.

With more private medical providers administering immunizations, the complexity of capturing the record and making it available to multiple providers around the state is increased. This is primarily because few providers are capturing data the same way and most want to maintain their current systems rather than implement something new. The plan recognizes that minimizing the impact on immunization providers, while providing a range of benefits, will be important. There are several challenges to be addressed.

One of the biggest challenges will be the effort to integrate local health district registries into the overall system. Idaho's seven local health districts have developed different versions of their own local immunization registries, many of which are providing services to private physicians in their communities. These systems will be retained, at the direction of local public health officials. There is also the need to institute mechanisms to assure data quality, maintain confidentiality, and create a statewide system that is manageable and supportable.

Another challenge is the need to obtain electronic data from physician management systems in order to avoid duplicate data entry. This will require vendors of these systems to collaborate on exporting immunization data for transmission from these systems to the state central registry. The project will provide vendors with a specification for creating and transmitting the electronic file and will need physician and health plan support to assure vendor participation.

A complete communication plan is being developed to assure that physicians and other system partners are fully aware of the system's design, function, and status. This will include presentations to medical associations, exhibits at conferences, and printed materials to raise awareness and understanding about the registry. The registry is just one part of the overall effort to protect Idaho children from vaccine preventable diseases. With the high level of political and community support evidenced by recent developments in Idaho, it's prospect for success is bright.

For more information, contact Patty Ahrens at the Office of the Governor at (208) 334-2100.

Tutorials, Continued from page 6

use information in multiple formats from a wide range of sources when it is presented via computers" (Gilster, 1997). My document is laid out in the form of a questionnaire. I list the competencies. .Desktop competencies include Windows competencies, writing and word processing competencies, time, task and contact management competencies, presentation competencies, and data management competencies.

Internet competencies you need in order to survive in a digital era include the ability to communicate using email. Generally speaking this means setting up a modem, installing software such as Eudora or configuring your browser to interact with your Internet Service Provider. It means understanding Netiquette, the rules of communicating in email and in discussion groups such as PNWHEALTH, PHSW, PHNUTR-L or PHNURSES. It means information literacy (critical thinking competencies), Web process competencies (being able to use your browser competently), information search competencies, data retrieval and manipulation competencies, information organization, bibliographic citation, and copyright knowledge competencies.

This site goes beyond an enumeration of what desktop and Internet competencies are. It also provides an explanation of the competency, a practice exercise to test newly learned skills, and links to other relevant Websites. Ultimately, the form will be interactive. A reader will be able to check the "Yes" or "No" box and when finished checking off his/her competencies, will get a list (with links to explanations) of areas of uncertain knowledge for immediate study.

To locate help with learning more about software, go to such sites as Larsson's Weblinks page, to ZDNet's ZD University and to C|Net. Think about who else might have an interest in creating tutorials. Many educational institutions offer syllabi and lecture notes for operating computers and running various kinds of software for free on the Web. Business schools and technical colleges are especially useful for this kind of training. Their computing centers and libraries create training documents to help students learn computing skills.

The many sites designed for K-12 teachers often include visually appealing training documents. My favorite PowerPoint site, for example, is "PowerPoint in the Classroom" put on by ACT360 Media. Other training sessions at this site include: "Office 2000: A License to Learn," "Internet Explorer 5 in the Classroom," "FrontPage 2000 in the Classroom," and Outlook Express.

Finding tutorials on the Web is simple. Pick your favorite search engine – I prefer Google.com or HotBot.com for most searches but find that Yahoo! is also a rich source of training materials and tutorials. In the search field, type in the name of the program that you want to learn about and after a space, type in "tutorial" or "hints" or "tips". For example, if you wanted to know more about WinZip, a program that enables you to compress and uncompress files, log into Google.com and type in: WinZip tutorial. Although this search returned over 3400 hits, you should be able to find the one you want to read in the first three pages.

Using your knowledge of who is most likely to want to provide you tutorials on a topic and your favorite search engines will net you a lot of useful help. Don't be shy about using the Web to improve your computing skills. You'll be able to do more work in less time and much more efficiently.

References:
Gilster, P., *Digital Literacy*. New York: Wiley and Computer Publishing, 1997. p. 1.

Laura Larsson, is Director Information Services, School of Public Health, University of Washington.

Demonstrating Productivity

by Laura Larsson

Does using a computer increase your productivity? There is some debate over this matter. Corporations seem to believe that it is increasing the productivity of their employees. In 1996 they invested 43 percent of their capital budgets—$213 billion—on hardware alone. If you add software purchases to this amount, 1996's total IT bill is about $500 billion in the U.S. and more than $1 trillion worldwide.

Others feel that access to all this information has leveled the playing field. Jeff Madrick makes the case that computer technology has yet to significantly increase productivity and may even be holding it back as people struggle to deal with the massive amounts of information generated by these same computers.

There is some indication that productivity increases when an employee telecommutes, possibly because with a home office that employee can work evenings and weekends as well as during the regular work day. Other benefits brought about by telecommuting include reduced costs and improved employee retention.

Productivity is more likely to increase the more employees are trained. For every $1 not spent on formal training, expect to spend $3 more for lost productivity every time one worker steps in to help another. You will have to make the decision about productivity. There is no doubt that computers have made people more efficient in generating and in using information of all kinds.

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W. Wayt Gibbs. Taking Computers to Task. *Scientific American*, http://www.sciam.com/0797issue/0797trends.html

Jeff Madrick. Computers: Waiting for the Revolution, *New York Review of Books*, March 26, 1998. http://www.nybooks.com/nyrev/WWWfeatdisplay.cgi?1998032629R

Calendar

October 26-27, 2000 Idaho Public Health Association, Pocatello

November 8-11, 2000, National Association for Education of Young Children (NAEYC) Annual Conference, Atlanta, http:www.naeyc.org

November 10-12, 2000, SOPHE 51st Annual Meeting, "Revitalizing the Revolutionary Spirit of the Profession" Boston, 202/408-9804, onfo@sophe.org

November 12-16, 2000, 128th Annual Meeting of the American Public Health Association, "Eliminating Health Disparities," Boston, http:// www.apha.org

November 16-19, 2000, 22nd Annual Conference on Patient Education, Albuquerque, NM, "WWW.Patient Education and You", Call 800/274-2237, ext. 5534 http://www.aafp.org/pec

December 1-3, 2000, ZERO TO THREE 15th National Training Institute, "Because Babies are Our Future," Washington, DC, Call (888) 733-5364, http://www.zerotothree.org

December 4-6, 2000, The Alaska Health Summit 2000, http:// www.alaskapublichealth.org

February 2 - 4, 2001, 10th Annual Western Migrant Stream Forum, Portland, OR email cbyrne@nwrpca.org www.nwrpca.org

April 29- May 2, 2001, 2001 AAPHD/ ASTDD National Oral Health Conference, Portland, OR 97201, (503) 226-7600 http://www.pitt.edu/~aaphd

April 19-20, 1999, 24th Annual Adolescent Sexuality Conference Sponsored by Marion County Health Department Location: Seaside, Oregon. Contact Kristin Nelson at 503-373-3751 or e-mail KNelson@open.org

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