

Medicine on the Net

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SECTION ONE: WHAT'S NEW ON THE NET: HOT TRENDS AND SITES

Despite dot.com downturns of 2000, participants at the December 2000 e-Healthcare World conference in New York, NY, healthcare Web site developers are “optimistic about the potential developments in the industry,” according to Kevin Berg, analyst for New York, NY-based FAC/Equities (<http://www.fac-equities.com/>). Following are just some of the trends and sites that are transforming the e-healthcare landscape. Subsequent articles in this occasional series will focus on related healthcare trends and sites

Trend One: Political advocacy and health policy

Even healthcare sites participated in the 2000 presidential election circus. Their activity demonstrated the power of healthcare Web sites to provide a balanced view of the campaign, deliver a more refined focus on presidential candidates' stands on specific issues, endorse specific candidates, and shape healthcare policy.

Lesson Learned: Think of how you can use your site to provide information, community, and advocacy opportunities on local, state, and national healthcare policy issues.

Wellnessweb.com

<http://www.wellnessweb.com>

WellnessWeb.com, for example, launched an Internet survey on presidential candidates' competing Medicare drug plans, including a poll that asked visitors to rank the most important healthcare issues for the new president.

Beginning in early October 2000, WellnessWeb offered visitors a chance to vote on whether Republican nominee George W. Bush or Democratic nominee Vice President Al Gore had the best plan to provide coverage of prescription drugs for senior citizens under Medicare.

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The poll asked visitors: "Gore wants to spend \$253 billion over the next 10 years to provide drug coverage under Medicare. Bush pledges he'll spend \$158 billion through state governments as he phases in private-market competition over the next decade. Whose idea makes more sense to you?" The online poll ran until November 6, 2000, and visitors were able to view real-time results.

In addition to the Medicare prescription drug question, the site polled visitors on two other issue questions: "If you could talk with George W. Bush and Al Gore, what would you consider to be the major issues facing the nation? Rank the following issues by priority. Assign each issue a number from one to five without repeating any numbers (one is the top priority, five is the lowest): The Economy; Education; Health Care; Tax Cut; and Campaign Finance Reform."

Another question: "If the next President had unlimited funds and power to fix what's wrong with the American health care system, which one of the following items should he do first?"

Association of Reproductive Health Professionals

<http://www.arhp.org/campaign2000>

The Association of Reproductive Health Professionals (ARHP) launched Campaign Watch 2000, a non-partisan Web site that featured reproductive health issues in the presidential campaign. Campaign Watch 2000 reviewed the Democratic and Republican platforms on health care, social issues, funding, and research, including previous legislative accomplishments by the candidates. Also included were health statistics from the two major candidates' states, and a resource center linking to official campaign web sites, major network coverage and polling data, and other non-partisan resources.

HalfthePlanet.com

<http://www.halftheplanet.com>

A resource for people with disabilities, this site endorsed Vice President Al Gore for

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president. In an effort to encourage the disability vote, the site offered information on each candidate's position, election news, forums for discussion, and election day information. HalfthePlanet.com's offerings included a resource center listing products and services across the U.S., online shopping, feature articles, an accessibility ratings and review guide, community forums and bulletin boards, tips for traveling with a disability, news on assistive technologies, a section dedicated to supporting entrepreneurs with disabilities, and legislators' voting records.

Trend Two: Online disease management

Disease management programs are becoming increasingly creative, using in-home devices, as well as a growing array of online tools, increased integration between online and offline programs, and wireless solutions. However, the disease management community is still struggling with issues such as measuring success, responsibility for payment, payor expectations, and limitations of disease management programs in helping patients and reducing costs. .

Lesson Learned: Reflect on how you can incorporate interactive disease management programs within your site, thereby moving along the continuum from information to interactivity, transactions, and care delivery. Leaders in this area include Pacificare (<http://www.pacificare.com/>) and Kaiser Permanente (<http://www.kp.org/>)

An article in the December 2000 issue of *Disease Management and Health Outcomes* (<http://www.dmaa.org/>) reveals that asthma patients can improve quality of life through Web-based personal health tools. Specifically, through the Web, patients can obtain the skills to control and prevent symptoms at a far less than more traditional interventions.

Martin Atherton, Director of Analytic Services for DoHealth (<http://www.dohealth.com/>) a division of The HealthScout Network (<http://www.healthscout.com/>), based his evaluation of a Web-enabled asthma self-management intervention on quality-of-life indicators. The MyAsthma Mini Asthma Quality of Life Questionnaire (MiniAQLQ) includes a global score and four domain scores (emotional status, environmental triggers, symptoms and activity restrictions), through which Atherton evaluated use improvement. MyAsthma registrants completed baseline and periodic MiniAQLQs over a six-month period to

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determine self-reported outcomes over a six-month period. (The MyAsthma channel (<http://www.MyAsthma.com>), which builds on self-management skills based on education, appropriate medication usage and symptom control, follows the National Asthma Education and Prevention Program Guidelines for the Diagnosis and Management of Asthma.

The results of the experiment demonstrated an elevated patient quality of life status across the board. High volume users were 1.6 times more likely to report an improvement in their global and domain scores compared with participants with less than the median number of visits. High volume users also reported a 95% improvement in their emotional and activity scores.

OneCare Street

<http://www.haelan.com>

The Haelan Group has developed the One Care Street population health management system, which helps to identify individuals who require high-cost, near-term healthcare. The system is based on the Perceived Health Model, which defines a person's health based on an evaluation of how that person is feeling and doing, not just on the presence or absence of disease. For example, the model looks at other factors affecting their feeling of well-being, such as stress, emotions, levels of functioning, levels of compliance, and personal beliefs. Included are these components:

Health Profile: To begin the process, members or employees complete a survey--via phone, paper or online--to assess their own perception of "health" and healthcare practices.

Predictive Model: One Care Street's stratification algorithm analyzes survey data and identifies individuals who are most likely to require higher levels of near-term care.

OneCareStreet.com: Using this Web-enabled application, a care manager can view data on high-risk individuals and receive coaching tips on how to treat these patients proactively.

Health Action Guide: Sent to each survey respondent, this guide incorporates the respondent's answers and offers advice on how to develop a personal health improvement plan.

Group Summary Report: This web-enabled summary report identifies trends based on reported data. These trends can then guide benefit, program or policy development..

TheDailyApple.com

<http://the>

The site's Diabetes Care Center features a long-term, personalized self-management program created with clinical guidelines from the American Diabetes Association and the American Association of Diabetes Educators.

The user's experience is enhanced with an overview of how to control diabetes through glucose monitoring, foot care, medications, and insulin, quizzes on nutrition and diabetes situations, as well as a diabetes community where users can exchange information and connect to related links. Also featured within the Center are a health planner and a weight tracker.

The Center also integrates users' clinical laboratory results. With online access to their lab test results, patients can better understand the context of test results, which are presented with normal range values and explanations of how physicians use the tests.

Other features of TheDailyApple.com include chronic health conditions such as diabetes, hypercholesterolemia, obesity, and high blood pressure.

CareSteps and myhealthways

<http://www.myhealthways.com/>

<http://www.americanhealthways.com/>

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Techniques used by energy companies to predict the demand for electricity and by financial institutions to manage stock portfolios are being used by healthcare organizations through CareSteps.com. The technique, called neural network predictive modeling, is an artificial intelligence tool that can identify a future event based on statistical links among known data.

CareSteps.com uses these models to help physicians, hospitals, health plans, employers, and other organizations identify people who are at risk for certain health problems. Once a consumer enters a medical profile, CareSteps.com produces a personalized health assessment and customized care plan based on medical guidelines and clinical protocols. The care plan takes into account the person's total health status, including gender, age, and other factors, not just a specific disease.

LifeClinic.com

<http://www.lifeclinic.com>

Lifec clinic.com is helping consumers identify, track, and control hypertension with features such as "ask the doctor," a physician locator, a hypertension discussion group, "doctor's visit," and a hypertension dictionary. The "ask the doctor" feature is designed to allow patients to post clinical questions regarding hypertension, medications, weight management, or other related topics. The questions are then answered by Thomas Pickering, MD, of Mount Sinai School of Medicine, New York, NY, and other hypertension experts.

For patients seeking a doctor who treats hypertension, the Lifec clinic.com physician locator generates a list of the closest hypertension specialists within an area. The locator displays contact numbers and a brief profile featuring the physicians' education and specialties. Meanwhile, the hypertension discussion group allows lifec clinic.com users to post questions about high blood pressure, lifestyle changes, and general health issues, while other users can respond with answers or comments.

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The "doctor's visit" is featured in the health chart section of the site. Patients can keep records of their doctor visits, including medications prescribed, and tests performed. Finally, the site's hypertension dictionary allows users to quickly look up and define unfamiliar medical words or terms.

Lifeclicnic.com's kiosks provide health information about high blood pressure and related conditions, while also measuring blood pressure, pulse, weight, and body mass. These measurements can then be downloaded via the Internet to an individual's personal medical record at Lifeclicnic.com. New installations of the kiosk are featured in K-Mart stores, augmenting more than 10,000 stand-alone kiosks.

FluWatch

<http://www.fluwatch.com>

The National Flu Surveillance Network (NFSN) entered the 2000/2001 flu season with more than 6,000 participating physicians doing testing at more than 1,000 sites. NFSN physicians use a 20-minute test to diagnose flu at their offices and transmit results by fax, Internet, or a touch-tone reporting system. Results are posted on the site and alerts are issued when the prevalence of flu in a community or region reaches certain levels—identified as No Action, First Case, Watch, Alert, Warning, and Epidemic.

One-of A Kind Personal Health Management System

<http://www.amhrt.org/>

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Developed by the American Heart Association, the One Of A Kind program focuses on risk factors and behaviors that lead to heart attack and stroke. The site analyzes users' readiness to make changes, such as quitting smoking or getting more exercise, and then identifies barriers to making those changes through an online health assessment.

Using tailored messaging, the site delivers information based on the user's lifestyle, preferences, and risk factors, such as high blood pressure, physical inactivity, smoking, obesity, diabetes, or family history. Users also receive reminder e-mails and access to their own Web site, which contains online newsletters, low-fat recipes, and information and news on heart disease and stroke.

Acurian

<http://www.acurian.com>

Acurian.com provides physicians and consumers with information on emerging medical therapies, research, and FDA-approved clinical trials. Patients, for example, can search and apply for inclusion in current or future clinical trials, and receive information on treatment developments and clinical trial opportunities. If a patient doesn't immediately locate an appropriate study, Acurian.com sends updates on other clinical trials that match the patient's profile.

Lifestream.com

<http://www.lifestreamtech.com>

The Personal Cholesterol Monitor by Lifestream Technologies Inc. offers patients a way to test their cholesterol levels for risk of heart disease and then store the test results within private medical files they can create online. The hand-held Lifestream Technologies Personal Cholesterol Monitor delivers results in a few minutes. Along with the ability to download and store up to 200 tests on a smart card which is inserted into the device.

WellMed.com

<http://www.wellmed.com>

Based on feedback from people who successfully quit smoking by using a six-week program, WellMed has developed Ready, Set, Stop!. Users can create personalized reminders, alerts, and messages to be delivered via e-mail, to a personal health

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home page, or through a cell phones. Users can also choose wireless messaging designed to counter smoking triggers.

Trend Three: Increased and more sophisticated interactivity

Along with disease management programs, the Web is now providing users with a growing number of interactive options to manage their health status and risks. Even healthcare professionals can choose from a growing number of interactive tools to diagnose and analyze management problems.

Lesson Learned: Increase opportunities for interactivity through licensed or organization-developed assessments, quizzes, alerts and reminders, tracking and management tools, and wireless solutions. Realize that special online centers or subsites may need to be created for various demographic groups, areas of interest, or diseases and conditions.

WellMed.com

<http://www.wellmed.com/>

WellMed, Inc. and its Personal Health Manager have partnered with Optum to offer its products through HealthForums.com. For years, Optum has offered individuals access to resources through telephone conversations, the Internet, face-to-face meetings, books, newsletters, audiotape messages, and training sessions. WellMed's suite of online consumer health management tools enables members and employees to check their health status, store personal health records, identify health risks, and obtain health information through news, alerts, and reminders.

HealthQuotient offers general and gender-specific health risk profiling tools that cover past health issues, family history, and lifestyle habits. Health Record is a secure location for consumers to create, gather, and store health records for themselves and family members.

Condition Centers is a source of educational information on conventional and

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alternative treatment options for important health topics. More than 20 conditions are addressed, including allergies, asthma, arthritis, depression, diabetes, menopause, osteoporosis, sleep health, and stress. Improvement Programs, in turn, is a series of self-paced programs designed to assist individuals to achieve changes such as quitting smoking, improving nutrition, and preparing for a healthy pregnancy.

WellMed, Inc. has also announced the launch of six online health management tools for women: an enhanced HealthQuotient, and five Condition Centers that focus on general women's health issues, osteoporosis, premenstrual syndrome (PMS), menopause and breast health. Integrated with HealthQuotient, these Condition Centers provide health recommendations, treatment option resources, and trackers that enable women to take preventative health measures.

Women access Condition Centers after completing HealthQuotient, a health assessment tool, that generates a personalized health profile, identifies risks, and delivers recommendations. The tool provides women with an HQscore, similar to an IQ score, that benchmarks their health status, while WellMed's HealthQuotient develops "what if" scenarios. In addition to an HQscore, women receive a list of their main risk factors and information on how these factors might influence the development of heart disease, cancer, diabetes, or stroke.

The Women's Health Condition Center and Condition Centers for osteoporosis, premenstrual syndrome (PMS), menopause and breast health provide educational information on conventional and complementary treatment options.

Following a growing trend toward wireless communications, WellMed, Inc, has also developed a wireless application that gives users access to personal health information via Web-enabled and digital cell phones. The wireless System includes alerts and reminders, through which users can develop reminders to take medications, participate in screenings, or exercise. They can also retrieve personal/family health information related to health insurance, physician contacts, blood type, medications, allergies, immunizations, and past medical conditions.

Through a fax record they can send emergency information from a cell phone to a

fax machine in a hospital or emergency clinic, while a drug interaction checker allows them to input drug and supplement names to determine drug interactions with current medications.

Individuals using this system will soon be able to locate a hospital or emergency care locator by using a wireless device with global positioning technology. Also scheduled are pre-programmed smoking "triggers" and weight loss/fitness reminders, tracking for blood pressure, peak flow, and exercise data, health news headlines, and health professional reminders.

Oncology.com's Cancer Buddy **<http://www.oncology.com>**

Oncology.com launched Cancer Buddy IM (instant messaging) as an enhancement to the Cancer Buddies online community at Oncology.com. The "Find A Buddy" matching feature offers patients, survivors, and families and friends the opportunity to connect for support based on cancer type, disease stage, and common interests. Members can search a directory to find other members with similar interests or who are in similar situations. They can also indicate when they are online in the Cancer Buddies community area, which makes them available to receive invitations to join in conversations. The tool interacts with the site's member-created Public Profiles, more than 55 monitored discussions, live events with members of the community, polls, and chat rooms.

MyFitnessExpert.com

<http://www.myfitnessexpert.com>

MyFitnessExpert.com enables professional, certified fitness experts to design and deliver customized programs, workout calendars, progress charts, and instant advice to their clients via the Internet. It also provides an exercise technique library that teaches users how to complete more than 400 different exercises.

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Carebar.org

<http://www.carebar.org>

The Meals On Wheels Association of America (MOWAA) has developed an alignment with Carebar. To increase awareness and fundraising, the organization has established a site (<http://www.GiveMeals.com>) where Meals On Wheels supporters can generate donations by viewing, clicking, surfing or participating in sponsors' programs. The GiveMeals.com site encourages its supporters to download Carebar to help MOWAA provide financial assistance to the local Meals On Wheels programs.

Carebar is a resource bar that fits at the bottom a user's computer screen and is free for anyone to download and contains links and a search engine. Seventy percent of the revenue is generated from supporters clicking on those links and advertising banners distributed to participating not-for-profit organizations.

HIPAA Calculators

<http://www.privacysecuritynetwork.com/healthcare/default.cfm>

Just in time for the new regulations, the Privacy SecurityNetwork.com (PSN) has unveiled its HIPAA Transaction Standard Calculator. The calculator gives healthcare, financial organizations, and their partners access to a tool to help them comply with the final regulation setting uniform standards for healthcare transactions under the Health Insurance Portability & Accountability Act (HIPAA). In addition to its HIPAA Privacy and Security Calculator, PSN's HIPAA Transactions Calculator allows users to determine how and when their transactions are covered by the new regulations. Visitors anonymously answer questions generated by the HIPAA Transaction Standards Calculator, which then generates a report advising the user on how to assess their transactions.

Trend Four: Vertical power through partnerships

Verticals are increasing in popularity and building their clout with traditional, e-commerce, and sometimes unpredictable partnerships.

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Lesson Learned: If your institution has a thriving center of excellence, such as oncology, cardiology, or neurosciences, reflect on what you can learn from successful verticals such as Cancerpage.com. Consider partnerships with highly trafficked local and regional portal sites, not-for-profit organizations, online and bricks and mortar stores, media such as newspaper, radio, and television, and healthcare sites that provide a different level or type of information and interactivity. Even consider development of a family or cluster of sites around a specific area of expertise or center of excellence. Finally, look to professional vertical communities for inspiration on how to meet the needs of physicians and other constituencies in your hospital, system, or health plan. healthcare

Verticalnet.com

<http://www.verticalnet.com>

VerticalNet properties, including Pharmaceutical Online, benefit from the ability to send a "narrowcast search" across the Web. This search delivers results to a site's visitors by allowing them to focus the scope of their search on an industry, profession, or subject of interest. Each search is conducted across a pre-defined catalog of sites chosen by content experts. Topics and industries indexed include high-tech, electronics, finance, healthcare, insurance, banking, telecommunications, and chemicals.

VerticalNet, Inc. (<http://www.verticalnet.com>) owns and operates 57 industry-specific Web sites designed as online business-to-business communities, known as vertical trade communities. These vertical trade communities provide users with sources of information, interaction and e-commerce.

The communities are grouped into the following industry sectors: Communications, Energy, Environment/Utilities, Financial Service, Food/Packaging, Foodservice/Hospitality, Healthcare, High Tech, Industrial, Manufacturing/Discrete, Manufacturing/Process, Public Sector, Science and Services. VerticalNet also provides auctions, catalogs, bookstores, career centers and other e-commerce capabilities horizontally across its communities with sites such as Industry Deals.com, LabX.com and ProfessionalStore.com.

Cancerconsultants.com

<http://www.cancerconsultants.com>

CancerConsultants.com is licensing cancer information from its primary consumer Web site, 411Cancer.com for use on HealthGate (<http://www.healthgate> and its affiliate sites, which include NBCi and the more than 500 hospital sites that use HealthGate's CHOICE eHealth Platform.

Founded to assist patients and their families in accessing cancer treatment information access to cancer drugs/treatments through the clinical trials process, CancerConsultants.com provides business-to-consumer and business-to-business Internet solutions to providers of cancer services through its family of Web sites: 411Cancer.com, which provides cancer treatment information; 911Cancer.com, which leads patients to specialized treatment programs; eCancerTrials.com, which facilitates access to cancer clinical trials; and Oncosurvey.com, which performs online market research involving patients and physicians.

Oncology.com

<http://www.oncology.com>

A resource dedicated to improving the quality of information available to those touched by cancer, Oncology.com targets specialized groups in the cancer community: Newly Diagnosed, Living With Cancer, Caregivers, Physicians, Nurses and Allied Professionals. Cancer Buddies, Oncology.com's community center, hosts discussions, which enable patients and survivors to share their experiences. All original content is reviewed by oncology health professionals.

Following are just some of the partnerships developed by Oncology.com:

Oncology.com and HealthGrades.com

<http://www.healthgrades.com>

Oncology.com users have access to HealthGrades' (<http://www.healthgrades.com>) ratings and profiles of healthcare providers nationwide, including the Mammography Facilities Profiles that feature both a directory and profiles of more than 10,000

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mammography facilities. Oncology.com users can also search HealthGrades' Physician Report Cards database for information on more than 27,000 physicians specializing in cancer care. Among the information available is physician certification status, medical school attended, and geographic location.

iWon

<http://www.iwon.com>

Visitors to iWon can take advantage of Oncology.com's daily coverage of breaking cancer news, as well as access to other areas of the Oncology.com site, such as its community area, Cancer Buddies. In addition to daily news, Oncology.com provides Cancer Overviews to deepen the health content on the iWon site.

But why would Oncology.com partner with iWon. Launched in October 1999, iWon is the 5th most trafficked site on the Internet (Nielsen//NetRatings, September 2000). Additionally, iWon ranks as the most loyal site on the Web, placing number one in repeat visitation (Media Metrix, September 2000). iWon has also been voted number one in user site and feature satisfaction among the leading search engines and portal sites (NPD Search and Portal Tracking Study). And iWon already has partners at the level of the Associated Press, CBS, Inktomi, CBS MarketWatch, Standard & Poor's Comstock, Reuters, TheStreet.com, Travelocity, and WeatherNews, Inc.

As an added incentive, iWon gives away to users \$10,000 every day, 30 prizes of \$1,000 every week, \$1 million every month, and \$10 million on tax day. By simply using the site to search the Web, check e-mail, go shopping, read the news, or perform other regular Internet activities, iWon users earn entries. Through the three tiered "Refer-A-Friend" program, iWon users earn cash prizes-- up to \$1 million-- if someone in their referral network wins a daily, weekly, monthly, or annual prize.

Oncology.com and MiracleWorkers.com

<http://www.miracleworkers.com/>

MiracleWorkers.com powers the recruiting section of Oncology.com's career center, accessible through <http://www.oncology.com>. MiracleWorkers.com has more than 35,000 job openings covering every medical specialty, giving Oncology.com's

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members access to an online healthcare candidate and job-posting database. Resumes and job postings can be tracked and managed through MiracleWorkers.com, while a search agent matches job seekers with positions specific to areas of expertise and geographic preferences.

Oncology.com and Miavita

<http://www.miavita.com>

The Miavita and Oncology.com partnership provides cancer patients and their families with access to Miavita's nutritional advice, products, and services. The Miavita client/visitor, in turn, has a direct link to Oncology.com's cancer resources, including news and online support network, Cancer Buddies. Oncology.com also offers personalized question-and-answer sessions conducted by registered dietitians who specialize in oncology, through a co-branded site with Miavita.

Oncology.com and Gynecologic Cancer Foundation

<http://www.wcn.org/gcf>

Oncology.com has developed a strategic alliance with the Gynecologic Cancer Foundation (GCF) to produce content in recognition of Gynecologic Cancer Awareness Month. Oncology.com, in partnership with GCF, co-produced a series of articles on topics targeting the interests of professionals, patients, and consumers. Throughout September 2000, these articles appeared on the Oncology.com Web site, while headlines and links appeared on the Women's Cancer Network's Web site (<http://www.wcn.org>) directing users to this content on Oncology.com.

Oncology.com and Selfcare.com

<http://www.selfcare.com/>

Cancer patients and caregivers can purchase specialized health products from homes thanks to a partnership between Oncology.com and SelfCare.com (<http://www.selfcare.com>), which bills itself as "the healthy living marketplace for

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women and their families.” The co-branded cancer store enables Oncology.com and SelfCare to bring cancer-related products to Oncology.com’s users. The availability of these products enhances the informational content on Oncology.com, particularly in the areas of coping strategies and complementary and alternative therapies.

Trend Five: Enhanced physician-patient connectivity.

Though still in their early stages of development, connectivity products are helping to increase patient satisfaction and enhance efficiency for healthcare organizations and physician practices. Among the benefits touted by Web site developers and client healthcare organizations time savings for physician and front-office staff and reduced patient cancellations and missed appointments.

Lesson Learned: Consider how you can link physicians and patients through licensed or organization-developed solutions. Look for solutions, that meet the needs of physicians and patients relative to eligibility, authorizations, referrals, claims status, registration, appointment scheduling, reminders, prescription refills, and personalized information.

Medem

<http://www.medem.com>

Thirteen of the nations' medical societies announced their combined recommendations for appropriate use of the Internet to empower patient-physician relationships To address the growing patient demand for physicians to communicate online, and to ensure patients are protected, Medem and medical societies have recommended these practices when using the Internet for patient-to-physician (P2P) communications:

- Internet P2P communications should occur within the context of an existing physician-patient relationship.

- Internet P2P communications should not be used for emergency purposes or situations.
- Internet P2P communications must be private, confidential, and secure. The physician is responsible for assuring that diagnosing, prescribing, educating, advising, requesting additional health information, clarifying treatment plans, and releasing medical records online is medically and ethically appropriate, and where necessary, that strong recommendation be made for face-to-face evaluation.
- The physician should establish and convey clear ground rules with patients governing the use of the Internet for P2P communications, either in the form of a notification on the physician's Web site or preceding online messages.
- All participants in Internet P2P communications should use the best reasonably available techniques to authenticate their identity.

The physician should make every effort to use the best and most authoritative clinical information to supplement Internet P2P communications.

Xtime and OneBody.com

<http://www.xtime.com>

<http://www.onebody.com/>

Xtime has partnered with OneBody Inc./OneBody.com to offering consumers access to more than 65,000 complementary and alternative medicine (CAM) providers. OneBody.com also offers scheduling and appointment-making services through the Xtime partnership. Serving more than seven million consumers through its contracts with health plans, including Blue Shield of California and Blue Cross and Blue Shield of North Carolina, OneBody provides businesses, consumers, and health care professionals with credible CAM services and information through the Web. The site includes contact and biographical information on more than 65,000 CAM practitioners as well as more than 2,500 clinically reliable articles on types of CAM, such as acupuncture, chiropractic care, massage therapy, homeopathy, and yoga.

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Vitalz

<http://www.vitalz.com>

Billing itself as a “Web-native scheduling and resource management application service provider for hospitals, health systems, and integrated delivery networks,” Vitalz offers a provider portal that books online referrals and appointments containing patient demographics, insurance plans, and authorization codes.

Trend Six: Increased access and attention to the diverse needs of minorities

Access may still be a problem, but sites are increasingly meeting the needs of minority communities.

Lesson Learned: Think about how your organization can increase access through computer giveaways by local vendors, placement of used computers in community centers, and Internet training programs for varied demographic groups such as seniors, young mothers, men, and children. Also consider how your site can meet the changing healthcare needs of Blacks, Latinos, Asians, and other groups. For an example for how a health system treats the issue of minority health, see NetWellness (<http://www.netwellness.org/>), a site developed by a consortium created by the University of Cincinnati, the Ohio State University, and Case Western Reserve University.

Gartner Group

<http://www.gartner.com>

Fifty million adults may be in danger of becoming functionally “illiterate” because they lack knowledge of or access to the Internet, according to a Gartner Group Inc. study. Gartner projected that 75% of U.S. households would be linked to the Internet by 2005, up from 50% today. The study found only 35% of “lower-socioeconomic-status” Americans had access to the Internet, compared with 53% in the lower-middle bracket, 79% in the upper-middle bracket, and 83% in the top

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bracket. Other aspects of this “digital divide” include the gap between savvy and novice surfers, and high-speed access through cable, digital subscriber lines, and other broadband delivery systems.

Migente.com

<http://www.migente.com/>

Community Connect Inc. (<http://www.CommunityConnectInc.com>) has developed MiGente.com, an online community for U.S. Hispanics. MiGente.com is complemented by Community Connect's two other sites: AsianAvenue.com and BlackPlanet.com. MiGente.com (<http://www.MiGente.com>) targets Latinos who are comfortable surfing the Internet in English, an audience which accounts for some 92% of online Latino population.

HealthScout

<http://www.healthscout.com>

The latest health news is now available in Spanish, both on the Internet and in print from HealthScoutHealthScout en Espanol. This daily feed of the health news stories is adapted into Spanish from the English-language and reviewed for medical and grammatical accuracy by physicians who are fluent in Spanish. In addition to its news feed, HealthScout Network plans is launching other established English-language products and services to the Hispanic market in the first quarter of 2001.

Yupi.com

<http://www.yupi.com> and <http://www.yupinitos.com>

Yupi Internet Inc., <http://www.yupi.com/>, a Spanish-language portfolio of sites, has launched Yupinitos at <http://www.yupinitos.com/>. Yupinitos.com is targeted toward Spanish-speaking children aged 14 and younger. In accordance with the Children's Privacy Protection Law, Yupinitos' links are categorized to ensure that its content is appropriate for children. The site is organized by content sections for sports,

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learning, entertainment, games and the animal world.

Through partnerships with Fox Kids, Sony, Columbia Pictures and DreamWorks, Yupinitos gives children access to television shows, celebrities, and music. The site also offers e-mail, electronic greeting cards, translation services, supervised chats, and membership in Club Yupinitos. At the club, children can interact with characters and exchange stories, jokes, drawings, or pictures to be posted on the site.

The latest additions to the Yupi portfolio are MujerFutura.com (<http://www.mujerfutura.com/>), a site catering to the interests and needs of Spanish-speaking women, and Amarillas.com (<http://www.amarillas.com/>), a bilingual business-to-business community for the Americas and Spain. Yupi also offers a selection of sites dedicated to localized news, content and services, which currently includes Yupi Argentina, Yupi Mexico, Yupi Spain, Yupi Colombia, and Yupi USA.

GlobalHealth2000.com

<http://www.GlobalHealth2000.com>)

GlobalHealth.com is a multilingual health Webs site providing medical news, healthcare articles, and medical information in 10 languages for healthcare professionals, patients, and consumers. The site's multispecialty, multilingual content is supported by a library with 20 million citations from 4,000 medical and health care journals dating. Featured databases include MEDLINE, AIDSLINE, CANCERLIT, and HealthSTAR. which are provided free of charge to GlobalHealth2000's members.

PapSmear.org

[http:// www.papsmear.org](http://www.papsmear.org)

The College of American Pathologists (CAP) is providing a free bilingual Internet-based service to help remind women to schedule their annual Pap tests. One visit to <http://www.papsmear.org> allows a woman to select the day within the next year when she would like to schedule a Pap test. On the date she chooses, an e-mail is sent reminding her to call her doctor and schedule an appointment.

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Black Entertainment Television

<http://www.bet.com/health>)

Black Entertainment Television (BET) has announced plans to create Rap-It-Up, a national awareness and call-to-action campaign addressing HIV/AIDS in the African-American community. Joining BET in the effort are the Kaiser Family Foundation, the Magic Johnson Foundation, LIFEBeat, and Cable Positive. Key elements of the initiative include public service announcements, a documentary and programming on BET to educate African Americans on the HIV/AIDS epidemic, dispel myths about the disease, and encourage safe sex. Another element includes healthcare services, medical testing, and HIV/AIDS education through the Rap-It-Up HealthMobile, which is touring nine urban areas in 2001. The campaign is rounded out with a toll-free number and the Internet presence.

Trend Seven: Online recruitment and job search

The Internet is increasingly being used as a recruitment tool as well as a job search and career development tool for healthcare professionals.

Lesson Learned: Think about how to use general healthcare career sites to boost your recruitment campaigns for physicians and other healthcare professionals. Also consider how to enhance your own site's employment area, which is typically one of the most popular features within a healthcare organization site. Contemplate the role of online resume submission, career development resources and links, employee and department profiles, searchable databases, and an e-mail alert featuring notifications of jobs in specific departments or fields.

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Hanrick Associates

<http://www.ehanrick.com>

Corporate recruiting Web sites have a strong influence on job seekers' perceptions of a company. More than 90% of graduating MBAs check company Web sites before submitting resumes, while 70% claim online recruitment material influences their decision. Other features that won high marks from job seekers were hard news and company background and history. Less popular are multimedia clips and testimonials by recent hires.

Jobscience.com

<http://www.jobscience.com>

Headquartered in Oakland, CA, Jobscience.com offers healthcare positions as well as resources such as including salary calculators, e-mail, career assessments, relocation tools, and online training. Also provided is a the opportunity for healthcare professionals to chat live over the phone with a career expert through a partnership with Keen.com.

Medimorphus.com

<http://www.medimorphus.com>

Medimorphus.com has partnered with the HEALTHSOUTH Corporation, allowing Medimorphus.com to become HEALTHSOUTH's exclusive interactive healthcare recruiting partner.

MedCAREERS

<http://www.medcareers.com>

MedCAREERS' (<http://www.medcareers.com/>) arrangement with AvantGo (<http://www.avantgo.com/>) provides employers and job seekers with recruitment and search tools for handheld devices or personal digital assistants (PDAs).

MDdirect.com

<http://www.mddirect.com>

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Through MDdirect.com, employers are notified via e-mail whenever a physician meeting specific criteria posts a position. In the same way, physicians receive an e-mail message with the posting of a practice opportunity that meet their needs. Both employers and physicians have the option of including logos or photos in their job postings or profiles.

Trend Eight: A growing focus on mental health , substance abuse prevention and treatment, and lifestyle issues

Lesson Learned: Consider how your site can address the mental health and quality-of-life needs of various constituencies such as parents, teenagers, and seniors. Include behavioral therapists in online ask-the-expert features, message board monitoring, and chats.

Here2listen.com

<http://www.here2listen.com>

Here2listen.com has teamed up Keen.com, to offer answers to problems through a network of 1,000 licensed counselors. Able to contact counselors over the phone through either Keen.com or here2listen.com, consumers can browse a directory of people who can answer their questions, click on a person's "Call Now" icon, and connect for a live phone call. Overall, Here2listen.com's community brings together news, features, self-help tools, quizzes, special content channels, message boards, and forums on varied aspects of mental health and wellness.

4therapy.com

<http://www.4therapy.com>

While 4therapy.com provides mental health professionals and behavioral therapists with client referrals and management support, it gives consumers a "Therapist Locator," as well as access to 1 chat rooms, self-assessment tests, moderated forums, and articles and reports on mental health issues. Using technology provided by MedCAREERS,, job seekers can create an online resume/CV, conduct job searches

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by profession, specialty, location, and keyword, and apply for positions. Employers, in turn, can manage job listings and conduct resume searches.

Partnership for A Drug Free America

<http://www.drugfreeamerica.org>

Both teens and parents can share drug-related experiences through online features such as Memorial Wall and In Your Own Words. In addition to offering two separate gateways-- Help for Teens and Help for Parents--members of the media can find facts about drug trends and monthly summaries of drug-related news. The site also includes public service announcements, with more than 100 anti-drug ads available for viewing and listening.

SECTION TWO: HEALTHCARE SITES WITHIN MULTIPLE CATEGORIES

I. Alternative Medicine

Alternative Medicine HomePage

<http://www.pitt.edu/~cbw/altm.html>

Developed by the Falk Library of the Health Sciences, University of Pittsburgh, Pittsburgh, Pennsylvania, this site serves as a gateway to information on unconventional, unorthodox, unproven, or alternative, complementary, innovative, integrative therapies. Included is information on AIDS and HIV, Internet resources, government resources, mailing lists and newsgroups, databases, and practitioners' directories.

WholeHealthMD

<http://www.wholehealthmd.com>

Founded as a venture d as an Internet venture between American WholeHealth, a provider of integrative medicine services, Rebus Inc., a medical publisher, and Whole Foods Market Inc., this site helps users cope with 100 ailments while also offering protocols developed by alternative medicine practitioners.

Vitacost.com

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<http://www.vitacost.com>

This site offers laboratory analysis of natural health products as well as rankings by a scientific advisory board. Products tend to be evaluated within categories such as weight management, men's and women's health, vision, and joint health.

Datadiwan

http://www.datadiwan.de/neuigkeiten/index_e.htm

This German and English site blends holistic medicine and biomedical sciences with professional discussion forums and networks. Users can benefit from listings of congresses, conferences, meetings, and research institutes, as well as writings on holistic medicine published in Diwan Magazine.

Herb Research Foundation

<http://www.herbs.org>

Working to make consumers and professionals more open to herbs, this site mixes news with herb links, a bulletin board, herb reviews, a botany gallery, herb links, a hotline, and customized research.

The Rosenthal Center Directory of Databases Content

http://cpmcnet.columbia.edu/dept/rosenthal/databases/AM_databases.html

Developed by the Rosenthal Center for Complementary and Alternative Medicine at Columbia University School of Medicine, this site links to sources from the U.S., Europe, and Asia. Links are subdivided into categories such as biomedical bibliographic databases, alternative medicine databases, medical, pharmaceutical or scientific databases, traditional medicine databases, therapy-specific databases, and research project databases.

OneMedicine

<http://www.onemedicine.com>

Created by Newton, Massachusetts-based Integrative Medicine Communications, this site offers both professionals and consumers an opportunity of “bridging the gap between conventional and alternative medicine.” While members can access special resources and services, both consumers and professionals can benefit from news and articles on integrative medicine.

Other alternative medicine sites

Cancerfacts.com (<http://www.cancerfacts.com/>)

The Natural Pharmacist (<http://www.tnp.com/>).

Academy for Anti-Aging Medicine <http://www.worldnet.net>

CancerOption

<http://www.canceroption.com>

Rnethealth.com

<http://www.rnethealth.com/>

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DrWeil

<http://www.drweil.com/>

Mother Nature.com

<http://www.mothenature.com>

HealthNotes.com

<http://www.healthnotes.com/>

Holistic Medicine Home Page

<http://www.tiac.net/users/mgold/health.html>

The National Center for Complementary and Alternative Medicine

<http://www.altmed.od.nih.gov/>

II. Business to Consumer Sites

MotherNature.com

<http://www.mothenature.com/>

Billed as the site that offers “natural products, healthy advice,” Mother Nature.com offers a combination of products and information within the broad categories of vitamins, herbs, and supplements, nature’s grocery, diet and fitness, bath and body, bookstore and boutique, aromatherapy and candles, home and fashion, natural kinds, natural therapies, and pet products.

Drugstore.com

<http://www.drugstore.com/>

Offering both shopping and advice and information, this site deliver medicine cabinet, beauty and spa, nutrition and wellness, personal care, pharmacy, and a variety of specialty stores. User can list their prescriptions and shop by brand.

More.com

<http://www.more.com/>

Like other online drugstores, this one offers drugstore basics and pharmacy as well as vision and vitamin centers, and natural and baby stores, and a home medical area. Users can also consult an info center to retrieve news and ask questions of experts.

Planetrx.com

<http://www.planetrx.com/>

“Life is better at PlanetRx,” at least according to the site’s home page, this site offers a store, pharmacy, and community as well as healthcare information on medical conditions, prescription and over-the-counter medications, vitamins and herbs. Also delivered are features such as Ask the Pharmacist, prescription refill reminders, and warnings about drug interactions, and a record of prescription/healthcare purchases.

Vitamins.com

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<http://www.vitamins.com/>

Operating with a “lowest price guarantee,” Vitamins.com offers an online encyclopedia on health issues, drug interactions, and supplements, news, the opportunity to shop A to Z, and a team of online experts.

Other business to consumer sites]

VitaminShoppe.com

<http://www.vitaminshoppe.com>

HealthCentralRx.com

<http://www.healthcentralrx.com/>

Intelihealth Healthy Home

<http://www.intelihealth.com/>

CVS.com

<http://www.cvs.com/>

Sickbay.com

<http://www.sickbay.com/>

enutrition]

<http://www.enutrition.com/>

Healthmall.com

<http://www.healthmall.com>

III. Business to Business Sites

MedMarketAuction.com

<http://www.medauction.com/>

Developed by Netivation.com, this site offers used capital equipment as well as medical school textbooks to physicians, executives, manufacturers, and students. While manufacturers can auction off equipment, providers can find equipment that may have been too expensive to purchase. Also developed by Netivation are MedMarket.com and DiscountMedBooks.com (<http://www.DiscountMedBooks.com/>).

SickBay.com

<http://www.sickbay.com>

SickBay offers professionals practice support services, while offering consumers savings on prescription, medication, eye care, and other services. Products and services are delivered through partnership with sites such as HealthScout, Claimsnet.com, and Americasdoctor.com.

Medpool.com

<http://www.medpool.com>

Using the Internet as to provide a pooling and bidding vehicle, Medpool.com delivers the equivalent of a virtual trading floor to healthcare professionals. Sellers can bid against each other
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on professionals' bids to win business, while buyers who have already selected products, preferred sellers, and price are pooled to get involved in the purchasing decision.

Other business to business sites

Embio.com

<http://www.embion.com/>

BioSpace

<http://www.biospace.com/>

SciQuest

<http://www.sciquest.com/>

Empacthealth.com

<http://www.empacthealth.com>

Esurg.com

<http://www.esurg.com>

MedicalSuppliesUSA.com

<http://www.medicalsuppliesusa.com/>

MyHealthPro.com

<http://www.myhealthpro.com/>

Neoforma.com

<http://www.neioforma.com>

Omnicell.com

<http://www.omnicells.com>

Medibuy.com

<http://www.medibuy.com/>

Promediz

<http://www.promedix.com/>

Zydical

<http://www.zydical.com/>

IV.E-Commerce Sites

E-Commerce Times

<http://www.ecommerce.com/>

Created to offer users a one-stop shopping resource on e-commerce this site uses a newspaper format to deliver a combination of news, special reports, job listings, opinion, cartoons, stock reports, message boards, newsfeeds and news letters and information on topics such as customer relationship management (CRM).

Internet.com's Electronic Commerce Guide

<http://www.ecommerce.internet.com/>

Designed as a complete guide to e-commerce, this site offers reviews, news, columns, and

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resources. Among the more interesting features are eBusiness Illuminator, Tech Advisor, ec- Tips, and ec-Trends. Through these and other features, the site addresses topics such as “Wireless Reality: A Portable Internet,” “The VC Dance Card: Are There Any Openings Left?”, and “Human Being v 1.0.”

E-Commerce Information Center

<http://www.theecic.com/>

Armed with the mission of “reporting on systems, application, technology, mergers, acquisitions, new products, and innovations in the e-commerce industry,” this site offers a combination of data, trends, forecasts and statistics. In addition to a variety of free services, the site generates a news briefing service called E-Commerce Market Reporter.

InternetNews.com e-Commerce News

<http://www.internetnews.com/ec-news>

While this site focuses on e-commerce news, it’s but one of the features of internet.com’s vibrant collection of news sites, which features coverage of finance, intranet, application service providers, streaming media, stocks, advertising, law, and a variety of other topics. Daily updated headlines are linked to full text articles on every aspect of e-commerce.

Other e-commerce sites

Business Week’s Ebiz

<http://ebiz.businessweek.com/>

CMPNet

<http://www.cmpnet.com/netbiz>

ZDNet

<http://www.zdnet.com/>

Cnet

<http://www.cnet.com/>

Commerce.Net

<http://www.commerce.net>

Nielsen//Netratings

<http://www.nielsen-netratings.com/>

PCMeter

<http://www.pcmeter.com/> or <http://www.mediametrix.com/>

HOT 100

<http://www.hot100.com>

COR Health

<http://www.corhealth.com/>

Cyberatlas

<http://www.cyberatlas.com>

ActivMedia

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<http://www.activmedia.com>
Commerce.net
<http://www.commerce.net/>
Cyberdialogue
<http://www.cyberdialogue.com/>
Department of Commerce E-Commerce
<http://www.ecommerce.gov/>
E-Marketer
<http://www.emarketer.com>
Forrester Research
<http://www.forrester.com>
Greenfield Online
<http://www.greenfieldonline.com/>
IDC
<http://www.ids.com/>
Jupiter Communications
<http://www.jup.com>
Internet Advertising Bureau
<http://wwiab/net/>
Media Metrix
<http://www.mediametrix.com/>
NetRatings
<http://www.netratings.com>
Daily Internet Statistics
<http://www.statmarket.com>
Web Criteria
<http://www.webcriteria.com>
WebReference
<http://www.webreference.com>

V. Disease management

Emedx

<http://www.emedx.com>

e-MEDx offers products such as e-SelfCare for Diabetes, e-PHA and e-Consult.

e-SelfCare for Diabetes, for example, provides an interactive communication vehicle for diabetics, physicians and care specialists. A patient fills out a diabetes-specific risk assessment questionnaire every month and an ongoing health diary once a day or week. An assessment graph is produced, offering feedback to the diabetic. The patient forwards the information to a primary care physician

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electronically or by printing it prior to an office visit. The assigned online clinician is automatically reminded to review each patient's assessment information. If the data predicts poor health and/or high risk factors, the clinician contacts the patient to evaluate the situation and perhaps calls the patient's physician.

LifemastersOnline

<http://www.lifemastersonline.com>

LifeMasters Supported SelfCare has expanded its health management offerings to include both prevention and wellness. The site's features include coaching emails; health lessons and reminders; condition-specific diet and nutrition information; exercise planning and tracking; smoking cessation; a health calendar; medication schedules and medication compliance monitoring; a health data archive; and an emergency medical record with a family history table. All are tailored to a subscriber's requirements. The enhanced program is also available through a strategic partnership with iVillage.

ECorSolutions Inc.

<http://www.ralinmed.com>, <http://www.ecorsolutions.com/>

Ecor solutions is but one of several disease management companies transitioning its programs to the Web. In the congestive heart failure (CHF) program, disease managers, who are trained CorSolutions cardiac nurses, perform an initial data gathering assessment with members by telephone. A site visit is then made by a contracted home health agency at the member's home, followed by regular telephone encounters by Disease Managers with the member. The nurses now work with members by telephone using a disease management system called MULTIFIT, a protocol-based clinical decision support system that was developed at the Stanford University Department of Cardiac Rehabilitation.

Protocol Driven Health Care(PDHI)

<http://www.pdhi.com>

This site offers a menu of disease management sites designed to help consumers and patients cope with their conditions. MyBP, for example, is what is being billed as the "first interactive health channel for people with high blood pressure." The site provides e-mail communication with a team of nurses and medical specialists, a personal diary for tracking blood pressure, diet, exercise, lifestyle changes, and medication usage, graphs that use information from the diary to monitor progress, a ten-year coronary heart disease risk assessment with comparisons, and other educational material, resources, features, tips and reviews.

Lifechart.com

<http://www.lifechart.com>

LifeChart.com offers an interactive asthma monitoring system and an electronic asthma monitor. Users blow into the monitor, which automatically records, stores, and displays the data in red,

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yellow and green-zoned charts. Results are uploaded to LifeChart.com over a phone line, where LifeChart.com organizes the information into electronic health reports.

Other disease management sites

Diabetes Well

<http://www.diabeteswell.com>

DietWatch

<http://www.dietwatch.com>

Confer

<http://www.confer.com/>

ProMedex

<http://www.promedex.com/>

Health Hero Network

<http://www.hhn.com>

Anthem Blue Cross Blue Shield

<http://www.anthembcbsnh.com>

Accordant

<http://www.accordant.com/>

Lifemetrix

<http://www.lifemetrix.com>

Chronicrx (<http://www.chronicrx.com/>)

Disease Management Consortium (<http://www.dismgmt.com/>)

VI. Government Sites

National Center for Biotechnology Information

<http://www.ncbi.nlm.nih.gov>

This entity within the National Institutes of Health works to analyze information about molecular biology, biochemistry, and genetics, while also conducting research and developing databases and software. With a wealth of biotechnology databases and research resources, this government-sponsored site offers insight into the world of biomedical and genetic research.

National Institutes of Health Office of Alternative Medicine

<http://altmed.od.nih.gov>

Formed to research alternative and complementary medicine practices, this site explains alternative and complementary medicine and its practices, while giving consumers questions to ask in evaluating alternative medicine therapies. Other areas of the site cover research, while a citation index presents thousands of relevant bibliographical citations from the National Library of Medicine's MEDLINE database.

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National Institute on Aging

<http://www.nih.gov/nia>

Another component of the National Institutes of Health (<http://www.nih.gov/>) this site offers reports on research related to topics such as Alzheimer's disease, elder abuse, and medication issues. Also presented on the site are consumer resources such as the Resource Directory for Older People and Age Pages, a collection of fact sheets.

Other government sites

Subject Guide to Government Web Sites

<http://www.nhc.nhmccd.cc.tx.us/public/lrc/gov/med.html>

USGovSearch

<http://www.usgovsearch.com>

Healthfinder (from the US Dept of Health & Human Services)

<http://www.healthfinder.org/smartchoices/qualitycare/default.htm>

National Guideline Clearinghouse

<http://www.guideline.gov>

Clinical Trials.gov

<http://www.clinicaltrials.gov>

Centers for Disease Control

<http://www.cdc.gov/>

National Institutes of Health

<http://www.nih.gov/>

Office of the Surgeon General

<http://www.surgeongeneral.gov>

Agency for Toxic Substances and Disease Registry

<http://www.atsdr.cdc.gov/>

Environmental Protection Agency Pesticide Program

<http://www.epa.gov/pesticides>

Food and Drug Administration

<http://www.fda.gov/>

Health Resources and Services Administration

<http://www.hrsa.dhhs.gov/>

Indian Health Service

<http://www.ihs.gov/>

Medicare

<http://www.medicare.gov/>

Mine Safety and Health Administration

<http://www.msha.gov>

National Center for Infectious Diseases

<http://www.cdc.gov/ncidod/>

National Center for Injury Prevention and Control

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<http://www.cdc.gov.ncipc/>

National Health Services Corp

<http://www.bphc.hrsa.dhhs.gov/>

Social Security Administration

<http://www.ssa.gov/>

Substance Abuse and Mental Health Services Administration

<http://www.samhsa.gov/>

Office of Minority Health

<http://www.omhrc.gov>

Combined Health Information Database

<http://chid.nih.gov/>

Consumer Health Library

<http://medlineplus.nlm.nih.gov/>

National Center for Health Statistics

<http://www.cdc.gov/hcsw> Click on National Center for Health Statistics.

National Health Information Index

<http://www.nih.gov/news/96index/pubincov.htm>

Institutes and Offices of the National Institutes of Health

<http://www.nih.gov/icd>

VII.Consumer Health Sites

HealthCentral.com

<http://www.healthcentral.com>

HealthCentral.com, for example, now offers news sub-channels, including Business and Government, Health and Wellness, Science and Medicine, Sex and Relationships, Kids and Family, and Alternative Medicine. The site also features a channel devoted to HealthCentral.com's personalized 70 newsletters, allowing users to view and order all 70 newsletter offerings.

The site provides links to HealthCentralRx.com, an online pharmacy with more than 23,000 prescription and non-prescription items. There are also links to two of HealthCentral.com's network sites: Rxlist.com, which provides drug information, and the company's Canadian Web site, www.healthcentral.ca, which supports the notion that many healthcare sites are going international.

HealthCentral.com is also known for its connection with Dr. Dean Edell, original content from Joe and Theresa Graedon of the People's Pharmacy, and content from Best Doctors.

ShapeUp.org

<http://www.shapeup.org/>

Through ShapeUp.org, C. Everett Koop, MD has launched a new weight loss program called Shape Up and Drop 10. Combining a personalized diet plan and fitness program, the user can set

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personal weight management goals, such as weight loss or prevention of weight gain, which is known as the "Shape Up" option.

RealAge.com

<http://www.realage.com>

RealAge.com allows users to calculate their "Real Age"—the age their body is based on how well they have maintained it over time. Then, through a process called Age Reduction Planning, RealAge.com helps users develop a personalized health plan, which suggests what steps that they can take to become younger.

Other consumer health sites

AmericasDoctor.com

<http://www.americasdoc>

Healthy People 2010 (<http://www.health.gov/healthypeople>)

Asimba (<http://www.asimba.com/>)

Cyberdiet (<http://www.cyberdiet.com/>)

DietWatch (<http://www.dietwatch.com/>)

Ediets (<http://www.ediets.com/>)

Third Age

<http://www.thirdage.com/>

The Health Network

<http://www.thehealthnetwork.com/>

OnlinePsych

<http://www.onlinepsych.com/>

Mediconsult

<http://www.mediconsult.com/>

Medscape

<http://www.medscape.com/>

Intelihealth

<http://www.intelihealth.com/>

AMA Health Insight

<http://www.ama-assn.org/consumer.htm>

MedHelp International

<http://www.medhelp.org/>

Getting Well

<http://www.pdr.net/getwell>

MedicineNet

<http://www.medicinenet.com/>

NetWellness

<http://www.netwellness.org/>

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Thrive Online

<http://www.thriveonline.com/>

Complete Home Medical Guide

<http://cmpcnet.columbia.edu/texts/guide/all.html>

New York Online Access to Health

<http://www.noah.cuny.edu/>

Health Answers

<http://www.healthanswers.com/>

Health World

<http://www.healthy.net/>

HealthGate

<http://www.healthgate.com>

Health Reality Check Online

<http://www.hcrc.org/>

Your Health

<http://www.yourhealth.com/>

Dr. Koop

<http://www.dr.koop.com/>

Wellness Interactive Network

<http://www.stayhealthy.com/>

Wellness Web

<http://www.wellweb.com>

OnHealth

<http://www.onhealth.com/>

Mayo Health Oasis

<http://www.mayohealth.org/>

OncoLink

<http://www.oncolink.unpenn.edu/>

Phys

<http://www.phys.com/>

VIII. Physician Connectivity**ParkStone**

<http://www.parkstone.com>

ParkStone's wireless gives physicians access to patient information, insurance guidelines, and submissions such as electronic prescriptions and changes in patient status. Physicians use this tool for managing and writing prescriptions, providing formulary guidelines, ordering diagnostic tests and generating referrals. The result is that physicians can streamline workflow, automate paper-based processes, and reduce disruptions such as pharmacy callbacks.

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WirelessMD

<http://www.wirelessmd.com>

WirelessMD provides a medical data retrieval system on multiple wireless hardware devices that function such as a pager, email, fax, phone and answering service in one handheld device. The application allows physicians to maintain two-way communication with office and hospital databases, obtain patient clinical information, acquire CME credits, prescribe medications wirelessly, and access non-medical applications. Physicians can communicate with pharmaceutical manufacturers, managed care organizations, pharmacy retailers, and the Internet via two-way alphanumeric pagers, handheld digital assistants, and wireless laptops.

EPhysician

<http://www.ephysician.com>

ePhysician, a developer of a Palm-based wireless handheld medical device, allows healthcare professionals to prescribe medications, schedule patients, and view allergy and formulary information through a Palm handheld computer and the Internet.

ePocrates

<http://www.epocrates.com/>

Physicians using ePocrates qRx can check whether a drug is potentially harmful when taken with other medications. Via the Internet, physicians automatically receive updated clinical information from the ePocrates clinical editorial board and content partners.

LifeChart.com

<http://www.lifechart.com>

LifeChart.com is an Internet based service that connects patients with their doctors and helps suffers of chronic conditions take greater control of their health. Using portable home testing devices, patients can monitor and report their condition on the LifeChart Web site, by accessing the Web via a WAP phone. With Web access from any location, the doctor can then prescribe medication or schedule office visits from anywhere.

Mdintouch.com

<http://www.mdintouch.com>

MDinTouch, Inc. is an Internet portal designed to meet the needs of healthcare professionals. . The MDinTouch Internet solution extends computing beyond the PC by using WAP to make patient information available anywhere. With WAP, a mobile phone can be used to access medical information such as patient reports, medication lists, and allergy lists.

Axolotal

<http://www.axolotl.com>

Axolotl Corporation will launch a Private Patient Portal through which physicians can send health information and clinical results to their patients, with patients accessing interactive tools and content. Using an ID and password, patients will log on to their personal Web page to view
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their latest lab results, check medication lists, refill prescriptions, read advice from their doctors, with condition-specific questionnaires and assessment tools, and follow links to customized information about their conditions. Patients might also ask or answer questions via e-mail, schedule and review appointments, or pick up referrals to a specialist. The Private Patient Portal is available as a standalone product or as an add-on component to Axolotl's suite of clinical messaging products called Elysium.

MedPearl.com

<http://www.medpearl.com>

MedPearl.com has introduced Web-based initiatives aimed at consumers. Among the offerings are a personalized health Web page offering doctor-patient communications, Web-based health commerce, online health assessments, and an online medical information card.

MyHealthRecord.com, a personalized health home page, links patients to health services and information linked to their physician. Patients can use these personalized Web resources to communicate with their doctors, check test results and other data, research health topics, and shop for products and services. Patients can track lab results, schedule appointments, request referrals, review medical records, and ask questions of nurses. MyHealthRecord also provides links to Web-based sources for prescription refills, over-the-counter drugs, vitamins, and medical supplies and devices.

ReThink

<http://www.rethink.com>

Rethink Inc.'s national college health Web site, 98six.com, provides students with access to the administrative, clinical and health promotion functions of their campus health center. Students can go online using 98six.com to make appointments at the health center, check lab test results and submit prescription refill requests. College and university health center staff also benefit from online ordering of medical supplies, continuing education programs and support of third-party reimbursement functions that come from pro98six.com.

Other connectivity sites

Iscribe

<http://www.iscribe.com/>

Autros

<http://www.autros.com/>

Beansprout.com

<http://www.beansprout.com>

Healinx

<http://www.healinx.com>

Medivation

<http://www.medivation.com/>

Mykidsdoctor.com

<http://www.mykidsdoctor.com/>

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W3Health

<http://www.w3health.com/>

Medscape

<http://www.medscape.com>

Health Vision

<http://www.healthvision.com/>

Axotl

<http://www.axotl.com/>

98point6

<http://www.98point6.com>

98six.com

<http://www.98six.com/>

MedPearl.com

<http://www.medpearl.com>

HealtheonWebMD

<http://www.webmd.com>

CareInSite

<http://www.careinsite.com/>

PointShare

<http://www.pointshare.com>

PassportHealth

<http://www.passporthealth.com/>

ClaimsNet.com

<http://www.claimsnet.com/>

Salu.Net

<http://www.salu..net/>

dbMed

<http://www.dbMed.com>

ValueMed

<http://www.valumed.com>

Cybear

<http://www.cybear.com/>

IX. Vertical Portals

CancerSource.com

<http://www.cancersource.com>

CancerSource.com is riding the celebrity bandwagon by offering a series of audiotaped interviews where celebrities talk about their experiences with cancer. The first in the series features Linda Ellerbee, a TV news reporter, writer and producer, and breast cancer survivor and Judith Light.

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ChildofMyDreams.com

<http://www.childofmydreams.com/>

Child of My Dreams.com, a resource on infertility, has partnered with Sereno Laboratories to launch an interactive medications library, which makes it possible for patients to learn about how medications work, their possible side effects, and which pharmacies stock a complete line of fertility drugs. The medications library also addresses patients' concerns about multiple births, insurance coverage and treatment options.

SusanLoveMD.com

<http://www.susanlovemd.com/>

Dr. Susan Love, an authority on breast cancer and women's health issues, has announced the addition of two new features to her Website (<http://www.SusanLoveMD.com>): PaperChase, a tool for retrieving synopses of reports in medical and scientific journals, and Advocacy Avenue, which offers Web-hosting and links to local support and advocacy groups. The site also features a photo collection of post-surgical breast cancer survivors who've had various types of procedures.

CancerPage.com

<http://www.cancerpage.com>

Cancerpage.com gets some 10,000 user sessions per day, the majority of which -- 6,000 -- are considered unique visitors. The average time spent on the site for each visitor is over seven minutes. Visitors can communicate via email with oncology nurses through the "Ask a Nurse" feature and receive an answer within 24 hours.

Other vertical portal sites

Oncology.com

<http://www.oncology.com/>

CancerSource.com

<http://www.cancersource.com>

CancerFacts.com

<http://www.cancerfacts.com/>

ChildofMyDream.com

<http://www.childofmydreams.com/>

Gazoontite.com

<http://www.gazoontite.com/>

FootHealthNetwork.com

<http://www.foothealthnetwork.com/>

Dr.SusanLove

<http://www.susanlovemd.com/>

CancerPage

<http://www.cancerpage.com/>

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Diabeteswell
<http://www.diabeteswell.com/>
 Drdrew.com
<http://www.drdrew.com/>

X. Professional Sites

Family Practice.com

<http://www.family>

FamilyPractice.com is an online resource devoted exclusively to family practice medicine. Among its offerings are multimedia tools for sharpening diagnostic skills, and reference and resource materials from the American Board of Family Practice(ABFP). It also features virtual patient encounters that allow physicians to diagnose and recommend a course of treatment. Each case outlines a patient visit, complete with history, review of systems, physical exam, studies that include graphics such as films and EKG strips, and lab results. The site delivers answers and supporting information. The FamilyMed.com reference center features the ABFP's 19 reference guides which have been enhanced with links to references, flowcharts, and clinical narrative. Also presented are 2,000 questions from past in-training exams along with answers and references, free web sites for ABFP-certified physicians, and links to 20 full- text articles.

The KnowledgeSpace Healthcare Community

(<http://www.knowledgespace.com/healthcare/>) offers a community for healthcare leaders with resources, best practices, diagnostic tools, customized news, studies, and trend and statistical analyses. Targeted to hospital, health plan, pharmaceutical, research, and supplier professionals, KnowledgeSpace Healthcare Community gives users access to Business Radar and Daily Highlights, which feature news from 400 newspapers, magazines, journals, and news wires, including 70 healthcare journals. Global Best Practices for KnowledgeSpace offers a collection of case studies and self-assessment tools, while Trends & Statistics presents market profiles, trend and strategic analyses, and presentations. Meanwhile, Knowledge Bundles and Executive Briefs serve up content and tools on hot-button issues such as HIPAA, information technology, e-health and commerce, the Balanced Budget Act, consumer issues, and prescription drug costs.

Acurian

<http://www.acurian.com/>

Acurian offers sponsors access to proprietary and patient databases, thereby accelerating launch of clinical trials. Sponsors have the ability to select and recruit investigators, recruits patients, and expedite the study launch documentation process. Aculaunch, an Internet-based clinical trial accelerator, will be available in September 2000.

Other professional sites

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Medsite.com

<http://www.medsite.com/>

Passport One Source (<http://www.passportonesource.com/>)

HealthLeaders.com (<http://www.healthleaders.com>)

FamilyPracticecom (<http://www.familymed.com/>)

Knowledge Space (<http://www.knowledgespace.com/healthcare/>)

Health Information Network (<http://www.hin.com/>)

Managed Care Online (<http://www.mcol.com/>)

OPUS Communications (<http://www.opuscomm.com/>)

VerticalNet.com (<http://www.verticalnet.com/>)

COR Health (<http://www.corhealth.com/>)

PDR.Net (<http://www.pdr.net?>)

XI. Search Engines and Megasites

MdChoice.com

<http://www.mdchoice.com>

Billed as the “ultimate medical information finder,” this site allows users to search among several types of pages, including in-depth reviews and chapters, brief reviews, patient information, case presentation, simulation, practice guidelines, news articles, and software. Users can simultaneously search for type of media, including photos, ECGs., radiographics and CT scans.

UCI (University of California, Irvine) Accessing the Internet

<http://www.lib.uci.edu/internet>

Developed by UCI libraries this site allows users to click on hyperlinks for any number of search engines ranging from Infomine and Raging Search to RealNMames, and Google. Other features include hyperlinks to metasearching engines as well as metasites to search engines and popular sites such as Search Engine Showdown, and Search Engine Watch.

MedMarket.com

<http://dr.medmarket.com/indexes/indexmfr.html>

The practice management health services index allows users to search among the index categories physicians, group practices, and clinics, hospitals, companies and medical resources, or simply enter appropriate keywords.

MedicineOnline

<http://www.meds.com>

This site delivers information and education within the specialty of oncology, including a Daily Oncology News Digest, MEDLINE searches, oncology forms and discussion groups and reports from medical meetings.

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Edmunds Home Page

<http://www.edhayes.com/>

Created as a labor of love, this site offers links to sites within the categories of pharmacy, medicine, nursing, dental, biosciences, nutrition, references pharmaceutical company indigent patient programs, and poiison control centers.

CliniWeb

<http://www.ohsu.edu/clinweb/>

Developed as an index and table of contents to clinical information on the Internet, this site allows users to enter search terms in five different languages, including English, German, Frechh, Spanish, and Portugese. Links are also provided to MEDLINE..

Other healthcare search engines

Cochrane Library

<http://www.update-software.com/cochrane/cochrane-frame.html>

Grateful MED

<http://www.igm.nih.gov/>

MDConsult

<http://www.mdconsult.com/>

Medical Business Search

<http://www.infomedical.com>Medical

MEDLINE Plus

<http://www.nlm.nih.gov/medlineplus/>

Medscape

[http://www.medscape.com /](http://www.medscape.com/)

Mosby's Periodical Search

<http://www1.mosby.com/>

National Organization of Rare Diseases

<http://www.stepstn.com/nord/db/dbsearch/search.htm>

Physicians Online

<http://www.po.com/>

PubMed

<http://www.ncbi.nlm.nih.gov/pubmed/>

MedFetch.com

<Http://www.medfetch.com>

WebMd

<http://www.webmd.com/>

Achoo

<http://www.achoo.com>

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AENIAD

<http://www.aeniad.com>

AMADEO

<http://amedeo.com/index.htm>

Biosites

<http://galen.library.ucsf.edu/biosites/>

Biocrawler

<http://www.biocrawler.com>

CliniWeb

<http://www.ohsu.edu/clinweb/>

Global Network Navigator

<http://www.pitt.edu/HOME/GHNet/>

Hardin MD

<http://www.lib.uiowa.edu/hardin/md/>

HealthAtoZ

<http://www.HealthAtoZ.com/>

Healthfinder

<http://www.healthfinder.gov/>

HealthLinks

<http://healthlinks.washington.edu/>

HealthWeb

<http://healthweb.org/>

Health on the Net

<http://www.hon.ch/medhunt>

Infomedical

<http://infomedical.com>

Martindale's

<http://www-sci.lib.uci.edu/HSG/HSGuide.html>

MDConsult

<http://www.mdconsult.com/>

MedExplorer

<http://www.medexplorer.com/>

Medfinder

<http://www.netmedicine.com/medfinder.htm>

Medical Matrix

<http://www.medmatrix.org/>

Medical World Search

<http://www.mwsearch.com/>

MedicineNet

<http://www.medicinenet.com/Script/Main/hp.asp>

MedlinePlus

<http://www.nlm.nih.gov/medlineplus/>

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MedScape

<http://www.medscape.com/>

MedWebPlus

<http://www.medwebplus.com/>

MedWeb (Emory)

<http://WWW.MedWeb.Emory.Edu/MedWeb/>

MicroMedex

<http://www.MDX.com/>

MMRL (Multimedia Medical Reference Library)

<http://www.med-library.com/medlibrary/>

NOAH

<http://www.noah.cuny.edu/>

OMNI

<http://omni.ac.uk/>

University of Pittsburgh Health Sciences Library

<http://www.hsls.pitt.edu/intres/>

SciTalk.com

<http://www.SciTalk.com/>

The Health Channel

<http://www.thehealthchannel.com>

Virtual Hospital

<http://www.vh.org/>

WebDoctor

<http://www.gretmar.com/webdoctor/home.html>

WebMD

<http://my.webmd.com>

World Wide Web Virtual Library

<http://www.ohsu.edu/clinweb/wwwvl/>

Info Prn

<http://infoprn.com/>

Healthgate

[http://www.healthgate.com/.](http://www.healthgate.com/)

MedSurf

<http://www.medsurf.com/>

Health Surfing

<http://www.healthsurfing.com/>

MedBot

<http://medworld.stanford.edu/medworld/>

MedSite

<http://www.medsite.com/>

Managed Health Links

<http://www.managedhealthlinks.com/> or <http://www.managedcareconnection.com/>

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FemaleHealth Links

<http://www.fmealehealthlinks.com/>

Citeline

<http://www.citeline.com/>

JADE

<http://www.ncemi.org/> (Click on JADE)

Medical SmartSearch

(<http://wunsearch.uthsca.edu/searchform45.htm>)

NewsRounds

<http://www.newsrounds.com>

AMEDEO

(<http://www.amedeo.com/>)

XIIPublications

Brandon & Hill List of Journals

<http://www.nlm.nih.gov/psr/outreach/branhill.html>

Featuring both the journal list and publisher, this site provides links to appropriate Web sites, as well as applicable links to full-text articles. Also provided is information on when the publisher started to provide Web access to the table of contents, abstracts, and full text articles.

E-Journal SiteGuide: A Metasource

<http://www.library.ubc.ca/ejour/>

This site offers an alphabetical lists of links to sites for e-journals as well as separate listings within the categories of academic, specific subjects, zaines, commercial and national news and media.

PubMedCentral

<http://pubmedcentral.nih.gov/>

Offering free online access to the full-text of life science research articles, this site allows users to view articles both as HTML through a Web browser or through downloadable PDF files.

Included are links from citations to PubMed abstracts, figures sized for online viewing, and supplementary support tools such as data tables, streaming video, and images.

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XIII. News Resources

Newswise

<http://www.newswise.com/menu-sm.htm>

WebMD National News Center

<http://webmd-practice.medcast.com/Z/Channels/1842>

Doctor's Guide to the Internet Medical News

Physician's Online

<http://www.pol.net>

QuadNet

<http://www.quad-net.com/>

CDC Prevention News Update

<http://www.cdcnpin.org/news/prevnews.htm>

AEGIS HIV/AIDS Daily Summary

<http://www.aegis.com/archive/ads.asp>

Journal of the American Medical Association Asthma Information Center

<http://www.ama-assn.org/special/asthma/newsline/newsline.htm>

Similar centers are available for contraception, HIV/AIDS, migraine, STDs, and women's health.)

Health Law News

<http://www.ljx.com/practice/health/index.html>

(See also sites such as:

VirtuLaw

<http://virtulaw.com/e-law.htm>

Cyberspace Law Subject Index

<http://www.jmls.edu/cyber/index/index.html>

FindLaw Cyberspace Law Center

<http://www.jmls.edu/cyber/index/index.html>

UCLA Online Institute for Cyberspace Law and Policy

<http://www.gseis.ucla.edu/iclp/hp.html>

Physicians Guide to the Internet Keeping Current

<http://www.physiciansguide.com/current.html> EurekAlert This Week's Releases

<http://www.eurekalert.org/news.pub.html>

Artigen Science News

<http://www.artigen.com/newswire/scitech.html>

Science Daily

<http://www.sciencedaily.com/news/summaries.htm>

UNISCI Daily University Science News

<http://unisci.com/>

Total News

<http://www.totalnews.com/>

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New York Times Technology

<http://www.nytimes.com/auth/login?URI=http://www.nytimes.com/aponline/indexTechnology.html>

National Public Radio Health and Science

<http://www.npr.org/news/healthsci/>

The Wire: Breaking News from the Associated Press

http://wire.ap.org/APnews/center_minor.html?FRONTID=SCIENCE

Newsday AP Update

<http://www.newsday.com/ap/healthsc.htm>

ReutersHealth

<http://www.reutershealth.com/>

Yahoo! Health News

<http://dailynews.yahoo.com/headlines/health/>

Nando Times Health and Science

<http://www.nandotimes.com/noframes/healthscience/>

Fox News Health

<http://www.foxnews.com/health/>

ABC News Living

<http://www.abcnews.com/sections/living/index.html>

MCNBC Health

http://www.msnbc.com/news/health_front.asp?ta=y

USA Today Health

<http://www.usatoday.com/life/health/lhd1.htm>

Business News

Newspage

<http://www.newspage.com>

PhysNet Everything Medicine

<http://www.phynet.net/medicine.html>

PR Newswire Health/Biotech

<http://www.prnewswire.com/health/HEA-MTC.shtml>

bizjournals.com Health Care Journal

http://www.bizjournals.com/journals/health_care/

BusinessWire HealthWire

<http://www.businesswire.com/healthlink/>

Industry Watch

<http://www.news-real.com/>

Chemscope.com Daily

<http://chemscope.com/news.asp?name=news>

Health Data Management Breaking News

<http://www.hdm.faulknergray.com/>

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Medical Device Industry News and Analysis
<http://www.hdm.faulknergray.com/>

Managed Care and Medical Policy News

HealthLeaders.com

<http://www.healthleaders.com/>

Modern Healthcare

<http://www.modernhealthcare.com>

AMAM News

<http://www.ama-assn.org/public/journals/amnews/amnews.htm>

Family Practice Management

<http://www.ama-assn.org/public/journals/amnews/amnews.htm>

Managed Care Daily Briefing <http://www.managedcaremag.com/daily.html>

Physicians Practice Digest

<http://www.ppd.net>

Electronic Policy Network Health Page

<http://epn.org/idea/health.html>

Medical Informatics News

Telemedicine Information Exchange

<http://tie.telemed.org/>

Health and Medical Informatics Digest

<http://144.92.205.41/hmid/home.htm>

Healthcare Informatics

<http://www.healthcare-informatics.com/aissue.htm>

PharmPages

<http://www.pjbpubs.co.uk/ppages/home.html>

Virtual Medical Worlds

<http://www.hoise.com/vmw/00/articles/index.html>

Health Management Technology

<http://www.healthmgttech.com/>

The Weekly Telemed

<http://www.matmo.org/news/newspage.html>

Online E-Content

<http://www.onlineinc.com/news/index.html#5>

XIV. Providers

mylifepath.com

<http://www.mylifepath.com>

Companies like Consumer Health Interactive are licensing content from alternative medicine

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vendors such as TheNaturalPharmacist.com (<http://www.TNP.com>) and offering TNP.com's database on herbs, vitamins, mineral and supplements to sites such as Blue Shield of California's Web site, <http://www.mylifepath.com> followed by Blue Cross Blue Shield of Minnesota at <http://www.blueprint.bluecrossmn.com> and Blue Cross Blue Shield of Massachusetts at <http://www.ahealthyme.com>.. Other features within mylifepath.com include content areas devoted to fitness and nutrition, women's and men's health, lifestyle and wellness, illnesses and conditions, as well as a customized newsletter, personalized home page, ask-the expert, and scrapbook.

Oxford Health Plans

<http://www.oxhp.com/>

Oxford provides a personalized page called "oxhp.com/myoxford." Through "MyOxford," a member can complete 10 transactions, ranging from choosing a primary care physician or specialist to ordering materials to checking claims history. Benefits administrators also can assist their employees in managing their Oxford experience through "oxhp.com/youraccount," where they can perform six transactions, from replacing identification cards to requesting forms and other materials, to checking an employee's eligibility. Doctors and hospitals can do six different transactions, from checking an Oxford member's eligibility to filing a claim, to reviewing benefits, to inquiring about a referral. Brokers can complete 10 transactions, from determining eligibility to checking commissions.

Health Partners

<http://www.healthpartners.com/>

Through the site's breakthrough Consumer Choice feature, users can find out satisfaction results for obstetric services provided in both hospital and clinics as well as pediatric and adult care in terms of overall satisfaction, access to medical care and information, patient care, and communication and health promotion.

Users can find how many patients were very satisfied, satisfied, neutral, or dissatisfied through both percentages and colorful bar graphs. Questions on each survey, which usually number no more than 10, cover issues such as a recommendation of a hospital to friends or family, providers' ability to address anxieties, overall satisfaction, and being treated with respect.

Elsewhere on the site, providers are subdivided according to one of three cost levels and rated in terms of better than average (***) , average (**), below average (*) Links are also provided to the individual hospitals, groups and health plans, which are then described in terms of an overall description, performance, access procedures, cost levels, hospitals and clinics .

Other provider sites

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PacifiCare Health Systems
<http://www.pacificare.com/>
 Blue Cross of Minnesota
<http://www.bluecrossmn.com/>
 AhealthyMe
<http://www.ahealthyme.com/>
 Mylifepath.com
<http://www.mylifepath.com/>
 Sentara
<http://www.sentara.com/>
 Medformation.com
<http://www.medformation.com/>
 Mayo Health Oasis
<http://www.mayohealth.org/>
 Intelihealth
<http://www.intelihealth.com/>
 Sharp
<http://www.sharp.com/>
 Emory
<http://www.emory.edu/>
 The Cleveland Clinic
<http://www.ccf.org/>
 Humana
<http://www.humana.com/>
 Hospital Web
<http://www.neuro-www.mgh.harvard.edu/hospitalweb.shtml>

XV. Insurance Sites

Ehealthinsurance.com

<http://www.ehealthinsurance.com/>

Offering free online instant quotes and purchase of major medical health insurance, this site offers the opportunity to compare individual. Small group and Medicare supplement plans and insurance companies

InsWeb

<http://www.insweb.com>Offering

Offering all types of insurance, including individual and small group health, this site operates with features such as Learning Center Toolbox, Rewards and Account Services. Users can enter their information once, compare quotes against their profiles, and choose from a list of insurance

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companies.

HealthExtras.com

<http://www.healthextras.com/>

Using Christopher Reeve as its spokesperson, this site aims to provide patients and families with affordable health and disability coverage. Users can click on “Learn More”: to find out how life events can compromise financial security, as well as “Insurance Solutions” to research specific insurance products.

Other insurance sites

HealthExtras.com

<http://www.healthextras.com/>

ehealthinsurance.com

<http://www.ehealthinsurance.com/>

Buycoverage.com

<http://www.buycoverage.com/>

QuickQuote

<http://www.quickquote.com/>

Bluecares.com

<http://www.bluecares.com>

Health Insurance Association of America

<http://www.hiaa.org/>

Insure.com

<http://www.insure.com/>

Cato Institute

<http://www.cato.org/>

United HealthCare

<http://www.unitedhealthcare.com/>

Aetna U.S> Healthcare

<http://www.aetnaushc.com/>

Fortis

<http://www.health.us.fortis.com/>

Golden Rule <http://www.goldenrule.com/>

Health Insurance Information, Counseling, and Assistance

<http://hicap.state.ny.us/>

Mutual of Omaha

<http://www.mutualofomaha.com>

National Coalition on Healthcare

<http://www.nchc.org/>

Principal Financial Group

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<http://www.principal.com/business/eebenefit/medical.htm>

UNICARE

<http://www.unicare.com/>

XVI. Continuing education

CME Web

Billed as “the global continuing medical education resource,” this site offers an online course Catalog where users can find out more about courses by specialty and by topics, or search all CME courses by keyword. Among the online courses featured are Animal Bites in Infants and Children, and Reperfusion Strategies in Elderly Patients with AMI.

Virtual Lecture Hall

<http://www.vlh.com/>

With more than 72 hours of online CME course, this site offers users the opportunity to skim courses by specialty as well as by sponsor. Users who opt to register with the site can access an online transcript containing a listing of all online CME activities. Meanwhile, a feature called My VLH tracks users CME requirements in up to five states, monitors courses in progress, and alerts users to new courses.

CECity.com

Called the “capital of continuing education,” CECity.com is organized around a private school, library, and healthcare campus, as well as separate areas devoted to pharmacy, allied health, medicine, nursing, and dentistry. A database application, CECity offers program that range from revamped journal based programs to streaming multimedia presentations.

Experient eLearning Technologies

<http://www.experient.com>.

In addition to offering users overviews of the e-learning industry, this site offers a rundown of products and services, including technologies used to build e-learning systems. Case studies and news round out a site devoted to technologies that help companies deliver knowledge and training to their employees.

Other continuing education sites

HealthStream.com

<http://www.healthstream.com>

MedLecture.com

<http://www.medlecture.com/>

Stanford CME Courses

<http://www.medstandford.edu/school/OSS/cme>

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National Institutes of Health CME Online

<http://odp.od.nih.gov/consensus/cme/cme.html>

Medscape CME

<http://cmecenter.medscape.com/Home/CME>

<http://cmecenter.medscape.com/Home/CMEcenter/CMEcenter.html>

Medical Meeting Hotline

<http://www.parkpub.com/cgi-bin/Park> <http://www.parkpub.com/cgi-bin/ParkHurst>

The International Institute for Continuing Medical Education

<http://www.ryalsmeet.com>

Harvard CME

<http://www.med.harvard.edu/conted/>

Diagnostic Imaging Symposia

<http://www.edusymp.com/meetings.cfm>

CMEsearch

<http://www.cmesearch.com>

Boston University Internet-based CME <http://www.bumc.bu.edu/www/busm/cme/ibcme.htm>

Cleveland Clinic Center for Continuing Education

<http://www.clevelandclinicmeded.com/online/topics.htm> CME Gateway

<http://www.clevelandclinicmeded.com/online/topics.htm>

Cyberrounds

<http://www.cyberrounds.com/> Frontiers in Biomedicine [http://207.78.88.15/George Washington](http://207.78.88.15/George%20Washington)

University Continuing Education in the Health Professions

<http://fact.gwumc.edu/cehp/webstudy.cfm>

Healthcare Management University

<http://www.cme-online.com/srvs/index.asp>

Healthgate CME

<http://www.healthgate.com/cme/index.shtml>

Health Stream University CME Courses

<https://www.healthstreamuniversity.com/Gateway/index.cfm?PID=32>

Integrated Medical Curriculum

<http://www.imc.gsm.com/siteinfo/cecredit.htm>

MD Consult CME Center

<http://home.mdconsult.com/bin/login?Tag=/&URI=/das/cme/view>

MedConnect CME

<http://www.medconnect.com>

<http://207.87.8.124/cme.htm>

Medvision Virtual On-line Training

<http://www.medivision-ol.com/index.htm>

Medsite University

<http://www.meduniversity.com/>

Physicians Online CME https://home.po.com/cgi-bin/pol_www/signon/signon.cgiVistaLink

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Medical Communications <http://www.vistalink.com/en/public/cme/>
 Virtual Hospital Continuing Education Courses and Conference Calendar
<http://www.vh.org/Providers/CME/>
 WebMD Practice
<http://webmd-practice.medcast.com/Z/Channels/1842>
 American Academy of Family Physicians American Family Physician Online
<http://home.aafp.org/afp>
 American Family Physician Monograph
<http://home.aafp.org/afp/monograph/>
 Family Practice Management
<http://www.aafp.org/fpm/>
 American College of Physicians/American Society of Internal Medicine Clinical Problem Solving
 Cases
<http://cpsc.acponline.org/>
 Physician and Sports Medicine CME Online
<http://www.physsportsmed.com/cme.htm>
 American Medical Association Take Online CME Courses
<http://www.ama-assn.org/cmeselec/courses.htm>
 Academy of Medicine of New Jersey Online CME
<http://www.acadmed.org/cme/cme.html>

 ArcMesa Educators
http://www.arcmesa.com/cont_ed/main.jhtml?P_ID=9 Baylor CME
<http://www.baylorcme.org/scripts/baylor/password.cfm>
 Cedars-Sinai CME
<http://www.csmc.edu/cme/courses/>
 CME-CE
<http://www.cme-ce.com/>
 CME InfoStore
<http://www.cmeinfostore.com/cmeinc/mental-health-mental-health-online-courses.html>
 CME Interactive
<http://www.cmeinteractive.com/>
 CME Web Credits
<http://www.cme-webcredits.org/index.html>
 CME Reviews
<http://www.cme-reviews.com/>
 Duke Office of Continuing Education
<http://www2.mc.duke.edu/docme/welcomeframe.html>
 EduNet
<http://www.edunetprograms.com/edunet.htm>
 Family Medicine Review II
<http://www.familymedicinereview.com/>
 Helix Continuing Education Medical
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<http://www.helix.com/helix/coned/medical/medical.htm>

InforMed

<http://www.megls.cme.edu/>

Interactive Grand Rounds

<http://monitor.medsite.com/>

Hospital Practice

<http://www.hosppract.com/cc.htm>

Postgraduate Medicine

<http://www.postgradmed.com/cme.htm>

Johns Hopkins Saturday Medicine Rounds and Conjoint Clinic

<http://www.broadcast.com/edu/jhmr/listen/>

Johns Hopkins Internal Medicine Board Review

http://www.johnshopkinswebcast.net/br_info.html

XVII. Pharmaceutical sites

Clinical Pharmacology 2000

<http://cp.gsm.com>

While this site requires registration, it delivers resources useful to both professionals and consumers, including cost and off-label uses. A product identification section helps users identify drugs through photos and imprints. Or users can search for drug interactions or for lists of drugs used for specific conditions.

MEDLINEplus Drug Information

<http://www.nlm.nih.gov/medlineplus/druginformation.html>

Developed by the National Library of Medicine, this consumer-focused resource is based on the United States Pharmacopeia Drug Information Publication, Volume II, Advice for the Patient. Users can take advantage of listings of more than 9,000 brand names and generic prescription and over-the-counter drugs .

Mediconsult.com Drug Info

<http://216.94.120.154/mc/mcsite.nsf/drugdbwelcome>

Managed by Clinical Pharmacology Online, this site focuses on searches of commonly used drugs and is available at no charge when accessed from Mediconsult.com.. Users can also search for drugs used to treat a variety of conditions.

RxList.com

<http://www.rxlist.com/>

Users can search by approximate drug name or by imprint code within a database based on Mosby's Gen RX for information on drugs. Other available search criteria include keyword,

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actions, brand or generic name, and drug interactions.

Nurses' PDR

<http://www.nursespdr.com/members/database/index.html>

Less complete than the Physician's Desk Reference, this guide still offers a drug databases as well as a newscenter, drug updates, archived drugs, and dosage calculation products, and drug links.

International Brand Name Index

http://www.medschool.com/futuretense_cs/MedSchool/datasets/patch_f/html/index/idxfb

Developed by MedSchool.com, this site offers trade name and drug information for countries ranging from Germany and Ireland to Japan and Mexico. Users have the option of searching an alphabetical index or convert brand names from their own country to those of another.

New Medicine in Development Database

<http://www.phrma.org/webdb/help.htm>

Users can search this database by disease, indication, or drug to find a relatively limited listing that includes the generic and trade name of the drug, manufacturer, and status. The site was developed by the Pharmaceutical Research and Manufacturers Association.

International Bibliographic Information on Dietary Supplements (IBDIS)

<http://odp.od.nih.gov/ods/databases/ibids.html>

This database offers scientific information on dietary supplements, including botanicals, vitamins, and minerals. Produced by the Office of Dietary Supplements at the National Institutes of Health, the database also features links to more than 1,500 publications.

Professional Resources

An FDA Guide to Dietary Supplements

http://www.fda.gov/fdac/features/1998/598_guid.html

Dietary Supplements Associated with Illnesses and Injuries

<http://www.fda.gov/fdac/features/1998/dietchrt.html>

Body Surface Area and Dose Calculator

<http://www.halls.md/bsa.htm>

FDA Information for Clinical Investigators

http://www.fda.gov/cder/about/smallbiz/clinical_investigator.htm

FDA Information for Health Professionals

<http://www.fda.gov/oc/oha/default.htm>

MedConnect CME/CE Center

<http://www.healthtozocme-ce.com/cme/CME> <http://www.healthtozocme-ce.com/cme/CMEPharmacy.html>

InPharm.com

<http://www.inpharm.com>

International Conference on Harmonisation of Technical Requirements for Registration of

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Pharmaceuticals for Human Use (ICH)

<http://www.ifpma.org/ich1.html>

Medical Mnemonics

<http://www.medicalmnemonics.com/>

Kansas University Medical Center Study Guides: Pharmacology

<http://www.kumc.edu/AMA-MSS/study/pharmacology.html>

Medicines by Design: The Biological Revolution in Pharmacology

http://www.nih.gov/nigms/news/science_ed/medbydes.html

MedWatch

<http://www.medwatch.com/>

Medical Counsel: Medicine's Stealthiest Problem

http://www.pfizer.com/pfizerinc/about/pubs/scene/article/43196_MC.html

Pharmaceutical Acronyms

<http://www.pharma-lexicon.com>

Searching the Internet for Drug Information

<http://www.drugs.indiana.edu/pubs/newsline/searching.html>

Taber's Medical Dictionary

<http://www.rxlist.com/cgi/taberssearch.cgi>

Drug Regulations and Safety

Buying Medical Products Online

<http://www.fda.gov/oc/buyonline>

FDA: New Drug Development and Review Process

http://www.fda.gov/cder/handbook/dev_rev.htm

FDA: Generic Drug Review Process

<http://www.fda.gov/cder/handbook/anda.htm>

FDA: Over-the-Counter Drug Review

<http://www.fda.gov/cder/handbook/otcpage.htm>

FDA; Post Drug Approval Process

<http://www.fda.gov/cder/handbook/postdrug.htm>

From Test Tube to Patient

http://www.fda.gov/fdac/special/ndd_toc.html

FDA: Product Recalls, Alerts and Warnings

<http://www.fda.gov/opacom/7alerts.html>

Drug Residue Avoidance

<http://www.vet.purdue.edu/bms/courses/bms513/scavma97.htm>

Guidelines for the Ethical Conduct of Studies to Evaluate Drugs in Pediatric Populations

<http://www.aap.org/policy/00655.html>

Inactive Ingredients in Pharmaceutical Products

<http://www.aap.org/policy/re9706.html>

Preventing Iron Poisoning in Children

<http://www.fda.gov>

Rezulin Proves the System Works

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<http://www.acsh.org/press/editorials/rezulin032900.html>
Similar Drug Names List
http://www.usp.org/reporting/review/rev_066.htm

Online Pharmacies

Verified Internet Pharmacy Practice Sites (VIPPS) Program

<http://www.nabp.net/vipps/intro.asp>

CVS.com

<http://www.cvs.com>

Drugstore.com

<http://www.drugstore.com>

Drug Emporium

<http://www.drugemporium.com>

Eckerd Online

<http://www.eckerd.com/>

FamilyMeds.com

<http://www.familymeds.com/>

HealthCentralRx

<http://www.healthcentralrx.com>

HorizonScripts.com

<http://www.horizonscripts.com>

<http://www.horizonscripts.com>

More.com

<http://www.more.com/>

PlanetRx

<http://www.planetrx.com>

Rx.com

<http://www.rx.com/>

RxUSA

<http://www.rxusa.com/>

RxUniversise

<http://www.RXUniverse.com>

XVIII. Compliance Sites

Department of Health and Human Services (see administrative simplification within the assistant secretary's section)

<http://www.dhhs.gov>

Arthur Andersen KnowledgeSpace

<http://www.knowledgespace.com/healthcare>

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E-Healthlawethics
<http://www.ehealthlawethics.com/>

Healthcare Financing Administration
<http://www.hcfa.gov/>

Health Care Compliance Association
<http://www.hcca-info.org/>

HIPAA Lawyer
<http://www.hipaalawyer.com>

Rx2000
<http://www.rx2000.org>

Privacy Exchange
<http://www.privacyexchange.org/>

Electronic Privacy Information Center
<http://www.epic.org/>

Privacy Rights Clearinghouse
<http://www.privacyrights.org/>

Internet Privacy Coalition
<http://www.privacy.org/ipc/>

American Hospital Association (Click on the HIPAA information center)
<http://www.aha.org/>

Joint Commission on Accreditation of Healthcare Organizations
<http://www.jcaho.org/pphi/>

National Committee for Quality Assurance
<http://www.ncqa.org/pages/communications/news/confrel.htm>

National Research Council, Computer Science and Telecommunications Board
<http://www.nap.edu/catalog/5595.html>

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Computer-Based Patient Record Institute
http://www.cpri.org/resource/cpri_docs.html#SECURITY
<http://www.cpri.org/resource/toolkit/index.htm>

American Medical Informatics Association (Guidelines for the Clinical Use of Electronic Mail with Patients)
<http://www.amia.org/pubs/pospaper/positio2.htm>

Organization for Economic Cooperation and Development
<http://www.oecd.org/dsti/sti/it/secur/prod/priv-en.htm>

Health Privacy Project, Georgetown University
<http://www.healthprivacy.org/resources/statereports/contents.html>

XIX. Clinical References

Harrisons Online
<http://www.harrisonsonline.com/>
 GeneClinics
<http://www.geneclinics.org/>
 PraxisMD
<http://www.praxismd.com/index.cfm>
 DynaMed
<http://www.dynamicmedical.com/>

Medical Journals

New England Journal of Medicine
<http://www.nejm.com/content/current.asp>
 Annals of Internal Medicine
<http://www.acponline.org/journals/annals/annaltoc.htm>
 Journal of the American Medical Association
<http://jama.ama-assn.org/>
 The Lancet
<http://www.thelancet.com/>
 CA A Cancer Journal for Clinicians
<http://www.ca-journal.org/>
 Journal of the American College of Cardiology

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http://www-east.elsevier.com/jac/cur_toc.htm
 Chest
<http://www.chestjournal.org/>
 Pediatrics Table of Contents
http://www.pediatrics.org/current.shtml#ELECTRONIC_ARTICLE
 Neurology
<http://www.neurology.org/>
 American Family Physician
<http://home.aafp.org/afp/>
<http://fampra.oupjournals.org/contents-by-date.0.shtml>
 Southern Medical Journal
<http://www.sma.org/smj/fulltext.htm>
 Emerging Infectious Diseases
<http://www.cdc.gov/ncidod/EID/eidtext.htm>
 Medscape
<http://www.medscape.com/>
 PDR.net
<http://www.pdr.net>

Citations

PubMed
<http://www.ncbi.nlm.nih.gov/htbin-post/Entrez/query?db=m&form=4&term=clinical&relpubdate=1>
 WebMedLit
<http://www.webmedlit.com/>
 OncoLink CancerLit Information
<http://cancer.med.upenn.edu/cancernet/>
 Rural Health Information Clearinghouse Current Literature Alert
<http://gain.mercer.peachnet.edu/rhic/rhicbb.html>
 Biomedicine and Health in the News
<http://library.uchc.edu/bhn/index.html>

Clinical Reviews

Index to Abstracts of Cochrane Reviews
<http://som.flinders.edu.au/fusa/cochrane/cochrane/revabstr/mainindex.htm>
 Journal of Family Practice POEMS Index
<http://www.info poems.com/POEMs/jcindex.htm>
 American College of Physicians Journal Club
<http://www.acponline.org/journals/acpjc/jcmenu.htm>
 Evidenced Based Health Care (British)

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<http://www.ebando.com/>

 Intellihealth Professional Network (see especially Journal Watch)
<http://ipn.intelihealth.com/>
 Informed
<http://www.ices.on.ca/docs/informed.htm>
 MedNews
<http://www.mednet.ca/html/medi-news.htm>
 American Health Consultants Hot Topics in Healthcare
http://www.ahcpub.com/ahc_root_html/hot/index.html
 Journal Club on the Web
<http://www.journalclub.org/>
 Weekly Web Reviews in Emergency Medicine
<http://www.wwrem.com/>
 STAT News at Your Desktop/IPeds At Your Desktop
<http://www.medconnect.com>
 GastroNews
<http://www.gastrosite.com/physician/gastronews/index.htm>
 ENT News
<http://www.ent-news.com/>
 Eye News
<http://www.eye-news.com/>

Therapeutics

MedWatch
<http://www.fda.gov/medwatch/new.htm>
 Rx List's What's New
<http://www.rxlist.com/whatsnew.htm>
 Medical Sciences News
<http://pharminfo.com/pubs/msb/msbmnu.html>
 PNN Pharmacotherapy Line
http://pharminfo.com/pubs/pnn/pnn_hp.html#new
 Therapeutics Initiative
<http://www.interchg.ubc.ca/jauca/>
 Drugtopics.com
<http://www.drugtopics.com/newirx.html>
 Listing of Newly Approved Drug Therapies
<http://www.centerwatch.com/drugs/DRUGLIST.HTM>
 New Medicines in Development Database
<http://www.phrma.org/webdb/phrmawdb.html>
 National Institutes of Health Clinical Research Studies
<http://clinicalstudies.info.nih.gov/prot.icd.html>
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Clinical Trials Listing by Disease Category

<http://www.centerwatch.com/studies/LISTING.HTM>

ACTIS Databases (AIDS/HIV)

<http://www.actis.org/actis.asp?URL=database&VIEW=general>

National Cancer Institute Developmental Therapeutics Program

<http://www.actis.org/actis.asp?URL=database&VIEW=general></HTML>

XX. Search Engine/Directory Resources

SearchEngine Watch

<http://www.searchenginewatch.com>

Yahooligans

<http://www.yahooligans.com/>

Ask Jeeves for Kids

<http://www.ajkids.com>

AOL Net Find

<http://www.aol.com/netfind/>

AOL NetFind is an Inktomi-powered search engine targeted at AOL users.

AltaVista

<http://www.altavista.com/>

This large search engine uses results that comes from Ask Jeeves and directory listings from LookSmart.

Ask Jeeves

<http://www.askjeeves.com/>

This popular search engine directs users to the exact page that answers a question. If it fails to find a match within its own database, it provides matching web pages from various search engines. Results from Ask Jeeves also appear within AltaVista.

Direct Hit

<http://www.directhit.com/>

Direct Hit monitors what users click on from the results of other search engines. Sites that get clicked on more than others rise higher in Direct Hit's rankings, making it a popularity engine.

Excite

<http://www.excite.com/>

This medium-sized index integrates material such as company information and sports scores into
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its results.

FAST Search

<http://www.alltheweb.com/>

Also known as All The Web, this search engine tries to index the entire web--supposedly some 200 million pages.

Go / Infoseek

<http://www.go.com/> or <http://www.infoseek.com/>)

Go offers personalization and free e-mail, plus the search capabilities of the former Infoseek search service, which has been folded into Go. It offers a good directory of Web sites.

GoTo

<http://www.goto.com/>

This search engine sells its results, with non-paid results coming from Inktomi.

Google

<http://www.google.com/>

Google makes use of link popularity in ranking its sites. This is very helpful in finding good Web sites during general searches on topics such as hospitals or physicians. users ers across the web have voted for good sites by linking to them.

HotBot

<http://www.hotbot.com/>

HotBot is a very popular site because its large index. Its first page of hits come from Direct Hit.

LookSmart

<http://www.looksmart.com/>

Much like YAHOO, LookSmart is a directory that provides directory results to Alta Vista and many other partners.

Lycos

<http://www.lycos.com/>

While Lycos started out as a search engine, it shifted to a directory much like Yahoo. It also features directory of Web sites called Lycos community guides.

Northern Light

<http://www.northernlight.com/>

Northern Light also has a set of "special collection" documents that are not readily accessible to search engine spiders, including newswires, magazines and databases. You can become a

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subscriber for approximately \$4.95 and then pay for some of the individual documents.

Open Directory

<http://dmoz.org/>

The Open Directory uses volunteer editors to catalog the web.

Yahoo

<http://www.yahoo.com/>

Yahoo has over 1 million sites listed and also supplements its results with those from Inktomi (<http://www.inktomi.com/>)

Snap.com

<http://www.snap.com/>

XXI. Legal Sites

Galaxy Law

<http://www.galaxy.com/galaxy/Government/Law.html>

FindLaw (This site offers thousands of legal sites, case codes, forms, law reviews, law schools, bar associations, law firms, experts, and courses.)

<http://www.findlaw.com/>

The World Wide Web Virtual Library Law

<http://www.law.indiana.edu/law/v-lib/lawindex.html>

Internet Legal Resource Guide (This is another collection of Web sites divided into the broad categories of academia, professional, and national and international research. Interestingly, this site has an archive of forms such as a power of attorney assignment for healthcare and a living will.

<http://www.ilrg.com>

Laws.com

<http://www.laws.com/>)

Lawguru.com (Has an Internet law Library as well as multiple search engines to do legal research.)

<http://www.lawguru.com>

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Legal Information Institute
<http://www.law.cornell.edu/topical.html>

LawSource.com
<http://www.lawsorce.com/also/>

Electronic Privacy Information Center
<http://www.epic.org/>

Privacy Rights Clearinghouse
<http://www.privacyrights.org/>

Internet Privacy Coalition
<http://www.privacy.org/ipc/>

HIPAA Info
<http://www.hipaainfo.com/> , <http://www.aha.org/hipaa..html>, <http://www.rx2000.org/>

HIPPA Lawyer
<http://www.hipaalawyer.com>

Lectric Law Library
<http://www.lectlaw.com/>

American Bar Association
<http://www.abanet.org>

The Complete Lawyer
<http://www.abanet.org/genpractice/lawyer/complete.html>

American Intellectual Property Law Association
<http://www.aipla.org/>

CounselQuest
<http://www.counselquest.com>

Legal dot Net
<http://www.legal.net>

Law News Network
<http://www.lawnewsnetwork.com/>

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Duhaime's Legal Dictionary
<http://www.wvliia.org/diction.htm>

Lawoffice.com
<http://www.lawoffice.com>

USA Law
<http://www.usalaw.com/>

SECTION THREE SEIECTED SITES AND COMMENTARY E-COMMERCE

AllEcommerce
<http://www.allec.com>

Look to this site for hyperlinked e-business news from sources as diverse as the Associated Press (AP), Reuters, Cnet.com, and Salon.com. While general e-business news is available through features such as Features and Reports and Surveys & Trends, users can find more specific insights organized within categories such as Marketing News.

The Industry Standard
<http://www.industrystandard.com>

This publication blends Web events and trends through features such as E-Commerce and Technology. While Opinion presents commentary on the new economy, Network offers a directory of Internet experts and leaders. Meanwhile, Metrics delivers a collection of weekly e-business stats backed by analysis, including Power Point slides of statistics used in presentations. Most fun of all may be *The Standard's* collection of e-newsletters.

The Electronic Commerce Research Center
<http://www.cio.com/forums/ec>

Part of the *CIO* magazine site, the CIO Electronic Commerce Research Center offers information clustered around more than a dozen subjects, including business-to-business, customer service, and banking. Each section offers articles from *CIO*, *CIO WebBusiness*, and *CIO Enterprise*, as well as links to resources such as marketing firms, white papers, and newsletters. Focusing on the strategy of e-business, articles focus on issues such as user attention and retention, call-center/Web-site integration, and user intimacy. Human Behavior and the Web offers information on e-learning, e-collaboration, and e-ethics.

E-Commerce Times
<http://www.ecommercetimes.com>

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E-Commerce Times offers news on e-business trends, technologies, products, and mergers and alliances. This news focus is complemented by commentary, profiles and interviews of e-business luminaries, reports on issues such as e-loyalty and e-trust and building a balance between bricks-and mortar and clicks-and-mortar sales, and Small Business Advisor, which explores entrepreneurial e-business strategies.

The Electronic Commerce Guide

<http://ecommerce.internet.com>

Like many resource guides the Electronic Commerce Guide opens with synopses of news stories, which link to full-text articles. Articles on issues as diverse as electronic retailing or e-tailing are found within E-Commerce News and Opinions & Trends sections, while E-Commerce Solutions offers EC Tech Advisor, a look at e-business systems, and E-Consultant, which covers business issues. Also offered are product reviews, and the E-Commerce Webopedia, which offers guidance on e-business terms and acronyms.

Electronic Markets

<http://www.electronicmarkets.org>

The Electronic Markets site provides content from the *Electronic Markets* quarterly print journal, which is edited by the Institute for Media and Communications Management at Switzerland's University of St. Gallen. This academic journal delivers links that lead to abstracts as well as complete articles available for download in PDF format.

Because online archive houses several years of back issues, users can search issue, title, author, or topic.

Center for Research in Electronic Commerce

<http://cism.bus.untexas.com>

Don't forget to check out this information resource on e-business with its research, reports, and working papers on topics as diverse as pricing, financial markets, and B2B. In this somewhat academic environment, you'll find links to other quality e-business resources as well as electronic commerce frequently asked questions

Other useful e-commerce and Net statistics URLs

InfoWorld.com

<http://www.infoworld.com/>

Business Week.com

<http://www.businessweek.com/> Specifically check out c.biz

CIO Web Business and E-Business Resource Center

<http://www.cio.com>

Information Week E-Business Resource Center

<http://www.informationweek.com/center/ebiz.htm>

Online Privacy Alliance

<http://www.privacyalliance.com/>

E-Lab

<http://www2000.ogsm.vanderbilt.edu/>

Information Strategy

<http://www.info-strategy.com>

The Internet Economy Indicators

<http://www.internetindicators.com>

United State Government Electronic Commerce Policy

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<http://www.ecommerce.gov/>
 BizRate.com
<http://www.bizrate.com>
 Understanding The Digital Economy: Data, Tools, and Research
<http://www.digitaleconomy.gov/>
Silicon Alley Reporter
<http://www.siliconalleyreporter.com>
 Better Business Bureau/BBB Online
 Code of Online Business Practices
<http://www.bbbonline.org/code/code.asp>
 Ebusinessforum.com
<http://www.ebusinessforum.com>
Internet Week
<http://www.internetwk.com>
Internet World Online
<http://www.iw.com>
ONLINE Magazine
<http://www.onlineinc.com/onlinemag>
 Netnomics
<http://www.baltzer.nl/netnomics/netnomics.asp>
 Digitrends.net
<http://www.digitrends.net>
BtoB
<http://www.netb2b.com>
 Cisco iQ
<http://www.cisco.com/warp/public/750/iq/>
WebWeek
<http://www.webweek.com>
 WebMaster
<http://www.web-master.com>
 E-Commerce Advisor
<http://ecommerceadvisor.com>
 Business Week's Ebiz
<http://ebiz.businessweek.com/>
 CMPNet
<http://www.cmpnet.com/netbiz>
 ZDNet
<http://www.zdnet.com/>
 Cnet
<http://www.cnet.com/>
 Commerce.Net
<http://www.commerce.net>
 Nielsen/Netratings
<http://www.nielsen-netratings.com/>
 PCMeter
<http://www.pcmeter.com/> or <http://www.mediametrix.com/>
 HOT 100

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<http://www.hot100.com>
COR Health
<http://www.corhealth.com/>
Cyberatlas
<http://www.cyberatlas.com>
ActivMedia
<http://www.activmedia.com>
Commerce.net
<http://www.commerce.net/>
Cyberdialogue
<http://www.cyberdialogue.com/>
E-Marketer
<http://www.emarketer.com>
Forrester Research
<http://www.forrester.com>
Greenfield Online
<http://www.greenfieldonline.com/>
IDC
<http://www.ids.com/>
Jupiter Communications
<http://www.jup.com>
Internet Advertising Bureau
<http://wwiab.net/>
Media Metrix
<http://www.mediametrix.com/>
NetRatings
<http://www.netratings.com>
Daily Internet Statistics
<http://www.statmarket.com>
Web Criteria
<http://www.webcriteria.com>
WebReference
<http://www.webreference.com>

Business Improvement, Innovation, The New Economy

Fast Company.com

<http://www.fastcompany.com>

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This site offers article from the print edition of the publication. Users can move through the current issues or check out the archives, as well as features on topics such as change, leadership, and finance, and the new economy. Also intriguing is a community section that presents opportunities to interact with writers, editors, and other users.

Context.

<http://www.contextmag.com>

Mirroring the print publication, this site offers users an opportunity to examine underlying trends and developments related to technological change in business. The focus is on topics such as technology-driven alliances and partnerships, speed to market and blending clicks and bricks businesses. Reviews and interviews frequently showcase notable business authors, theorists, and working CEOs. Also featured are e-mail sneak peaks of articles, a bookstore, letters to the editor, and a community section for sharing ideas of various articles.

Business 2.0

<http://www.business2.com>

Focused on the new economy, this business publication offers coverage of topics such as management of Internet start-ups, dot.com success factors, changes within business schools, and the world of B2B commerce. Other regular features focus on emerging technologies, leader profiles and interviews, and overviews of products, books, events, and news.

CIO Knowledge Management Resource Center

<http://www.cio.com/forums/knowledge>

CIO contributes the power of its several publications to create this online resource center. Covered are technologies used in knowledge management, as well business processes and culture. An ask-the-expert feature gives user the chance to ask questions of consultants and authors, while online white papers and articles provide additional depth. Also featured are links to publications and associations.

Industry Week

<http://www.industryweek.com>

Focused somewhat on manufacturing, this publication covers issues such as customer feedback in product development, and streamlining the supply chain process. With an emphasis on research and benchmarking, the publication covers innovation and technology awards as well as lists of best managed companies and top plants.

American Productivity and Quality Center

<http://www.apqc.org>

Offering reports, white papers, and case studies on business improvement efforts, this online association hub offers features on best practices in areas such as marketing, human resources, and customer relationship management. Also delivered are articles, executive summaries, and white papers on topics such as e-CRM and benchmarking, a bookstore, and an e-mail newsletter. Additional services are provided to members.

The Society for Organizational Learning

<http://www.sol-ne.org>

Dedicated to organizational change, this organization focuses its Web site on both international and U.S. issues. Included are tools, articles, and resources, including the opportunity to submit papers or essays on topics such as

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vision, leadership, management, and organizational structure. Also offered is information on new ways of working and learning, as well as specific methods and tools such as systems thinking. Some areas are restricted to members, including a research area devoted to presentations and case studies.

Human Resources

Society for Human Resource Management

<http://www.shrm.org/>

SHRM Online is targeted toward the human resources professional, but offers a variety of resources of interest to anyone involved in managing and developing people. While not all features are accessible to non-members, any user can benefit from features with *HR Magazine*, which covers topics such as benefits, recruitment, retention, and technology, as well as *HR News*, where the focus tends to be on regulations, labor and workforce issues, and labor trends and statistics. Also covered within the site are emerging trends such as employment, politics, and HR strategy, as well as a directory of HR consultants, a list of HR job openings, and an online bookstore.

HR Wire

<http://www.hrwire.com>

Users can scan headlines on the home page, conduct searches, or browse through categories covering issues such as compensation and benefits and workforce management. Users also have the opportunity to choose topics of interest such as labor relations and policies and procedures, and then receive a customized newsletter from the site. The site is available on a subscription basis.

Workforce Online

<http://www.workforce.com>

Among the features of this site are reader polls, tips, columns, and stories of actual work experiences. A research center offers articles from *Workforce* magazine searchable by keyword or browsable by topic, while an HR basics area presents guidance on best practices, technology, employee reward systems, and retirement planning. Covered elsewhere in the site are legal issues, careers, successful HR programs, as well as forums focused on careers, benefits and technology.

Workindex

<http://www.workindex.com>

This site offers a series of links to HR resources selected by *Human Resource Executive* magazine and Cornell University's School of Industrial and Labor Relations. Links are focused on categories such as recruitment, staffing, and HR management, although each category tends to lead to a sub-category –each of which offers a list of sites with brief descriptions. Other features of the site includes job postings, ask the expert, and an editor's choice selection of books and Web sites.

The HR Manager

<http://www.auxillium.com/contents.html>

An online reference guide, this site offers HR basics as well as articles written by HR professionals and consultants. Users will find articles on topics as diverse as employee turnover, variable pay systems, and disruptive work environments. Each article tends to be linked to additional resources and cross-references.

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People Management

<http://www.peoplemanagement.com>

Developed by the Institute of Personnel and Development in the United Kingdom, this online resources offers content from the print publication. News features tend to be concentrated on the United Kingdom, with more general news available in categories such as training and international.

The site also offers features such as opinions, book reviews, and coverage of legal work-related issues.

Technology**CIO.com**

<http://www.cio.com>

Focused on IT executives, this online publication offers sub publications such as *Web Business* and *Darwin*. Within various research centers of the site, users can find articles and links related to topics such as e-business, intranets, and networks, as well as ask-the-expert columns and research organization reports. Discussion forums help IT professionals keep up with colleagues, while a people section tracks IT career moves.

InformationWeek.com

<http://www.informationweek.com>

Users can find IT news as well as the current weekly issue where they can scan articles on topics such as infrastructure, business applications, and other issues. Meanwhile, more resource-oriented areas of the site focus on issues such as customer relationship management (CRM) and IT benchmarking, while more specific features cover single IT issues. Research reports are available for online sale, along with a variety of surveys, including those focused on IT users, IT salaries, and IT company financial performance.

Brint.com

<http://www.brint.com>

Delivering IT information as well as links to a variety of sites, this site offers white papers, articles, and editorials in areas that include e-business, technology, and knowledge management. The site also offers an online magazine that offers forums and links to magazines and journals.

News.com

<http://www.news.com>

Covering technology and the Internet, this site offers stories on hot topics as well as more standard features on issues such as e-business and enterprise computing. Also presented on the site is opinion and analysis, insider news, interviews with executives, and special reports on issues such as wireless communications. A variety of newsletters address just about every area related to computers and e-business.

Upside Today

<http://www.upside.com>

Based on the print version of the publication, this site offers its own online content. Included are sections devoted to news, opinion, finance, and e-business. News summaries are provided along with an online bookstore featuring book reviews and author interviews.

Technology Review

<http://www.techreview.com>

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Examining the process of innovation, this online publication looks at biotechnology and pharmaceutical issues as well as IT issues. Articles from the print edition of the publication are replicated on the site, along with special features on high tech innovators and trends related to the Internet, hardware, and software.

The Information Management Forum

<http://www.infomgmtforum.com>

Marketing

BtoB

<http://www.netB2b.com>

Billed as “the newspaper of the marketing revolution,” this site covers electronic marketing with news items blended with features and a variety of departments focused on issues such as direct marketing, database marketing, business media, and Internet marketing. Special features rank business-to-business Web sites as well as top Web marketers, while a Web price index tracks costs associated with e-commerce systems, Web development, and site maintenance. This publication is published by Crain Communications, which also publishes *Advertising Age*.

Sales and Marketing Executives International

<http://www.smei.org/>

Covering member-related information such as chapters, conferences, and professional certification information, this site also offers daily breaking news. Included in the site’s library are articles focused on topics as diverse as database marketing, media and promotion, as well as links to journals, organizations, and academic Web sites. Also featured in a collection of speeches by marketing executives and a search feature that allows users to search marketing-oriented sites rather than the entire Web.

AdWeek Online

<http://www.adweek.com>

A combination of features from *Adweek*, *Brandweek*, and *Mediaweek*, this site offers news, interviews, and articles for online marketers. Included are critiques of ad campaigns as well as coverage of top sports of the month, and statistics related to box office grosses and music sales. An online career network features allows for the posting of resumes and open positions, while a \$14.95 monthly subscription allows for complete access to magazine articles, directories of agencies, media outlets and brands, and a database of advertising accounts under review.

American Demographics

<http://www.demographics.com/>

Featuring a variety of stories from the print publication, this site offers features as well as news on topics as diverse as loyalty marketing, online privacy, Baby Boomer health preferences, and toy marketing. An archive of articles is supplemented by information on trade shows, which is searchable by trade show name, month, city, and industry. Also offered is an online bookstore and a directory of vendors.

WorldOpinion

<http://www.worldopinion.com>

Focused on market research and the market research industry, this site also presents profiles of various market industry firms. A news section offers links to market research newsletters, a directory of research organizations, and a listing of technical terms. A calendar of events is balanced by discussion and chat areas for market research

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professionals.

Sales and Marketing Management

<http://www.salesandmarketing.com/>

Weekly news blends with the cover story of Sales & Marketing Management magazine as well as other articles from the publication. Written with a broad view, the articles are archived for subscribers while others can access and purchase articles by viewing previous tables of contents. Users can also connect to additional resources listed within each article, while an annual review documents the nation's best sales forces. Other surveys focus on topics use as the real cost of sales calls and the use of technology in marketing.

Digitrends.Net

<http://www.digitrends.net>

Focused on the needs of interactive marketers, this site offers daily news as well as e-business news. Feature stories zero in on areas such as Web marketing, online research, and building a positive online customer experience. Such features are augmented with columns, interviews, case studies of interactive marketing, and directories of agencies and ad networks.

APPENDIX I: RELATED INFORMATION ON WHERE TO GO ON THE NET FOR HEALTHCARE RESOURCES

Keeping Up with the Internet.

One of the questions people ask most often is how to keep up with the Internet. One of the most valuable sites on the Internet is Internet.com (<http://www.internet.com/>), which is actually a kind of one stop shopping resource for Internet-related information. There are separate channels—14 of them--for just about every topic dealing with the Internet: advertising and marketing, investments, wireless, e-commerce, ASPs, ISPs, international developments, and news.

Another valuable resource is the Library of Congress. Librarians there have developed an extensive listing of Internet resources, including valuable information on search engines, Internet tutorials, and hot areas such as privacy and security. What's more, this site is a solid good jumping off point for government resources. Problem is that this site is somewhat tough to find. Go to <http://www.loc.gov> and then go to the browse feature. Move to the letter "I" and you'll find Exploring the Internet under Internet.

One of the best things you can do to keep up with the Internet is patronize the sites of publications

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focused on e-business, e-commerce, or the so called new economy . These include online publications such as Business Week's e-biz. (<http://www.businessweek.com/>), which gives you a good sense of what's happening throughout the Internet and uses a magazine style and a solid mixture of features and columns. Also in this category are sites such as E-company (<http://www.ecompany.com/>)

A big favorite among many healthcare industry people is The Standard.com (<http://www.thestandard.com/>), which includes news, feature articles, and a variety of research pieces focused on companies, people, and Web metrics. As with a variety of other online publications focused on e-business, this site invites you to subscribe to a variety of newsletters that deliver news on issues ranging from Internet law to wireless.

Business 2.0 (<http://www.business20.com>) does a great job with issues like online marketing and privacy. Like other publications, it also offers e-mail newsletters, daily insights, research-oriented information, and interactive polls. Similar observations can be made about Upside (<http://www.upside.com>), a publication offering special features on issues such as business to business and digital media. Its Web site, however, appears in the form of Upside Today, which delivers a blend of news, investment information, and e-business advice, as well as the opportunity to subscribe to Upside Direct.

One of the best offerings within the Internet.com portal site is a site called Cyberatlas.com (<http://www.cyberatlas.com/>), which aggregates statistics from research companies such as Jupiter, Forrester, Greenfield, and Cyberdialogue. You'll can find profiles of various markets, as well as information dealing with Internet geographics, demographics, and traffic patterns. For example, if you want to find out about women on the Internet or college students or seniors, Cyberatlas.com is likely to deliver relevant hits via an on-site search. One of the site's most valuable features is Stats Toolbox, which offers a snapshot of Internet usage, ad banner performance, and other issues.

The other site within the Cyberatlas.com category is emarketer (<http://www.emarketer.com/>), which offers news and statistics as well as a free e-mail newsletter and e-reports available for purchase.

Another site that's part of the Internet.com family is Search Engine Watch (<http://www.searchenginewatch.com/>.) Recognizing how extraordinarily difficult it can be to keep up with search engine launches and upgrades, this site makes the job easier with an e-mail alert as well as in-depth information on the growing number of sophisticated and specialized search engines and shopping bots.

Research Companies

You'll also want to pay attention to the work of research companies, which you can access
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directly through a variety of Web sites such as those maintained by Forrester (<http://www.forrester.com>), Jupiter (<http://www.jupiter.com>), and Cyberdialogue (<http://www.cyberdialogue.com/0>). Other relevant healthcare research is being done by Harris Interactive and by LaurusHealth.com (<http://www.laurushealth.com/>)

Gomez.com (<http://www.gomez.com>) ranks sites within a variety of industries. Within healthcare, for example, it ranks sites with the categories of cholesterol, health content, health and wellness stores, and online drugstores. Looking more closely at health content, it's easy to see how sites are rated in terms of an overall score, ease of use, consumer confidence, and on-site and relationship services. Interestingly, users can also determine which sites would be most appropriate for them if they were either a novice, looking for support, or an extremely health conscious consumer. Users can both contribute and scan ratings and reviews as well as take advantage of periodic wrap-ups and summaries. One commentary, for example, discusses improvements within healthcare sites, noting developments such as depth of content, privacy innovations, and e-care and tools.

In addition to taking advantage of the framework for examining healthcare sites, you may want to review how Forrester Power Rankings (<http://powerrankings.forrester.com/>) rates e-commerce sites such as Drugstore.com and Mothenature.com on online performance. Here you can find out about somewhat unusual sites like NetGrocer (<http://www.netgrocer.com/>), which offers a Diabetic Solutions store and an area where consumers can buy so called unmentionable items.

In this category, you can also find sites such as Healthgrades.com (<http://www.healthgrades.com/>), which provides rankings of hospitals, physicians health plans, nursing homes, health agencies, hospice programs and fertility clinics, and Bestdoctors.com (<http://www.bestdoctors.com>), which asks for best doctor nominations from other physicians and then puts nominated physicians through its own review process before listing their names on the site.

Mega Site and Portals

While you can find out about new search engines through Search Engine Watch, you may also want to consult a resource called Hot Sheet (<http://www.hotsheet.com/>) which provides hyperlinks to both general search engines and meta search engines such as Mamma.com (<http://www.mamma.com>) and Dogpile.com (<http://www.dogpile.com/>), which simultaneously search several different search engines.

A favorite search site is Direct Hit (<http://www.directhit.com/>) because of its ability to deliver the top sites on the Internet and to suggest a variety of alternative or related searches. Another is The most popular ones aren't always the ones you think they are.

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Another valuable search engine is Northern Light (<http://www.nlsearch.com/>), which allows for a Power Search of both the Web and the site's "special collection" of publications. While users must open an account and pay for full-text articles, the site is extremely useful in accessing specific resources such as book reviews in minimal time. Users can also further refine their search according to date parameters, types of documents, and subjects covered. While Fast (<http://www.alltheweb.com/>) is ranked high by many librarians, another favorite is Google (<http://www.google.com/>), which provides search results offering links to other related sites.

Among the most useful healthcare mega sites are those developed by librarians or connected to academic medical centers. Medical Matrix (<http://www.medmatrix.org>) was developed at the University of Kansas and offers annotated reviews on journals, textbooks patient education, CME, and symposia on the Web, with a particular focus on "ranked, peer-reviewed annotated, updated clinical medicine resources." A closer look at the category of CME, for example, highlights the site's dependence on content experts. What users receive for each site is a brief annotated description with a more specific underlying chart.

HealthWeb (<http://www.healthweb.org/>), which was developed by a consortium of libraries, offers a series of online bibliographies. Click on genetics, for example, and you'll find separate listings within the categories of consumer resources, databases, online journals, organizations, software, and other topics. This site is especially useful to those who need to find quality resources quickly

Hardin MD (<http://www.lib.uiowa.edu/hardin/md/>) is a collection of collections. Click on pharmacology, for example, and you're linked to collections of collections typically either assembled by megasites or by academic sites. If a given site is followed by a star (*), this indicates that Hardin has checked its links. The site also offers searches of a given topic within PubMed and an electronic journal showcase.

The University of Pittsburgh Health Sciences Library System (<http://www.hsls.pitt.edu/intres/>) offers a series of specialized guides created by librarians. Click on statistics, for example, and you retrieve an annotated guide to how to find statistical information, including a listing of organizations and associations that collect statistics. The same is true of the grants and funding category where you can find annotated references to databases such as GrantsNet and Community of Science. Also available are links related to specialties such as AIDS and HIV, which links to site such as Aegis, the AIDS Treatment Data Network, and AIDs.org.

Physicians are getting into the act of creating their own sites such as MD Choice (<http://www.mdchoice.com/>), which serves the needs of both consumers and professionals. With this site, for example, you can indicate the topic, as well as the type of page, such as a practice guideline, news, software, or case presentation.

Developed by several doctors, MD Express (<http://www.mdexpress.com/>) includes a series of links in a variety of categories such as practice guidelines, health statistics, and medical search

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engines. While some resources such as WebMD (<http://www.webmd.com>) and PubMed are well known, other links such as InfoMedical.com offer more specific guidance on how to search for vendors and medical conferences.

For consumers, sites such as Healthfinder (<http://www.healthfinder.gov/>) provide a similar level of guidance with sites ranked within categories such as tools, topics, news, and demographic groups. Click on alternative medicine and a specific subtopic such as acupuncture and you retrieve a listing of resources as well as specific details on each site, including the sponsoring organization, a site description, and related keywords useful in doing subsequent searches.

Also increasing on the Web are highly specialized directories and search engines such as Managed Care Connection (<http://www.managedcareconne>), which offers an exhaustive collection of associations, search engines, managed care journals, and other topics.

News and Publications

MedFetch (<http://www.medfetch.com/>) automates MEDLINE queries and sends results directly to your e-mail box, while AMADEO (<http://amadeo.com/>) allows you to specify topics of interest and have the results delivered in the form of an overview with weekly updates of abstracts delivered to a personal Web page. A similar type of service is provided to physicians by Newsrounds (<http://www.newsrounds.com/>), which invites users to scan both general news and news within specific categories. Even more important, users can receive a free, personalized healthcare newspaper and a personalized home page.

Of course, if you want a more comprehensive service, you can subscribe to those provided by companies such as Individual.com (<http://www.individual.com/>). Here you can sign up for a daily version of the news, a customized news Web site, and a customized daily e-mail briefing, choosing from among topics as genetics, biotechnology, and healthcare regulation. While you can easily go to sites such as PR Newswire (<http://www.prnewswire.com/>), Business Wire (<http://www.businesswire.com>), Reuters Health (<http://www.reutershealth.com/>), and Bloomberg (<http://www.bloomberg.com/>) to find this information, services like Individual.com make the process of news retrieval much easier.

The good news is that just about whenever you look, there are publications, sites of publications, and information aggregator sites to keep you informed and up to date. One of them is Web MedLit. (<http://www.webmedlit.com/>), which offers citations, abstracts, and full-text articles within 10 categories, including medical economics. You also have the option of searching and sorting by relevancy scores and receiving an e-mail update on new articles.

Modern Healthcare (<http://www.modernyhealthcare.com/>), for example, is developing a career resource center and already has features such as Ask the Expert, daily news, and a conference directory. The same is true of more specific healthcare topics such as medical and healthcare

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informatics, where you can find publications such as Healthcare Informatics (<http://www.healthcare-informatics.com/>).

And more sites are aggregating content. These include include Health Leaders.com (<http://www.healthleaders.com/>), a product of Passport Communications, where you retrieve information on pharmaceuticals, research, legal issues, managed care, and many other topics. Passport recently purchased Healthcare Business (<http://www.healthcarebusiness.com/>).

The observation made about Health Leaders.com could also be made of Health Intelligence Network (<http://www.hin.com/>), which provides access to a basic level of information at no cost as well as access to articles within other publications for a fee. Users are able to do free keyword searches and pay only for the articles they need.

And at COR Health (<http://www.corhealth.com/>), users can access at least a portion of stories appearing in publications such as Internet Healthcare Strategies, The Healthcare Strategist, Medicine on the Net, and Healthcare Leadership Review. Full-text article access to COR publications is provided on a subscription basis.

Related Sites: Compliance

Department of Health and Human Services (see administrative simplification within the assistant secretary's section
<http://www.dhhs.gov>

Arthur Andersen KnowledgeSpace
<http://www.knowledgespace.com/healthcare>

E-Healthlawethics
<http://www.ehealthlawethics.com/>

Healthcare Financing Administration
<http://www.hcfa.gov/>

Health Care Compliance Association
<http://www.hcca-info.org/>

HIPAA Lawyer
<http://www.hipaalawyer.com>

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Rx2000

<http://www.rx2000.org>

Privacy Exchange

<http://www.privacyexchange.org/>

Electronic Privacy Information Center

<http://www.epic.org/>

Privacy Rights Clearinghouse

<http://www.privacyrights.org/>

Internet Privacy Coalition

<http://www.privacy.org/ipc/>

American Hospital Association (Click on the HIPAA information center)

<http://www.aha.org/>

Joint Commission on Accreditation of Healthcare Organizations

<http://www.jcaho.org/pphi/>

National Committee for Quality Assurance

<http://www.ncqa.org/pages/communications/news/confrel.htm>

National Research Council, Computer Science and Telecommunications Board

<http://www.nap.edu/catalog/5595.html>

Computer-Based Patient Record Institute

http://www.cpri.org/resource/cpri_docs.html#SECURITY

<http://www.cpri.org/resource/toolkit/index.htm>

American Medical Informatics Association (Guidelines for the Clinical Use of Electronic Mail with Patients)

<http://www.amia.org/pubs/pospaper/positio2.htm>

Organization for Economic Cooperation and Development

<http://www.oecd.org/dsti/sti/it/secur/prod/priv-en.htm>

Health Privacy Project, Georgetown University

<http://www.healthprivacy.org/resources/statereports/contents.html>

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APPENDIX 11: CONSUMER TRENDS AND EXPECTATIONS

I. Where We're At Now

Key Point One: Demand for healthcare information is on the rise, but quality continues to be uneven.

By 2005, 88.5 million adults will use the Internet to find health information, shop for health products and communicate with affiliated payors and providers through online channels, according to research by Cyber Dialogue (<http://www.cyberdialogue.com/>)

Cyber Dialogue's study "The Future of e-Health" found the consumer demand for healthcare content has already reached critical mass -- an estimated **36.7 million adults** -- and will continue to grow at roughly twice the rate of the overall online population.

Health-related **e-commerce** has already taken flight with 11 million consumers shopping for health and beauty products, and Cyber Dialogue predicts this number will grow to more than 55 million by 2005. Purchasing vitamins, supplements, and personal health products marks a significant change in online consumer buying behavior, which has typically revolved around the purchase of books, travel, and computer hardware/software.

The study also identified key growth segments that will impact the future of e-Health, as well as areas that may inhibit growth. Among the reasons for continued growth are increased online penetration among the **elderly** (65+ years); **health insurance companies** aggressively migrating their customers to the Web; health **providers** urging patients to use the Web for education, insurance, and prescription drug orders; **employees** conducting health insurance transactions online; and **new parents** relying on the Web for health/parenting information. Among the possible culprits for declining growth in the market are a lack of detailed content; privacy concerns regarding the submission and transmission of health information online; delays in businesses implementing their business-to-business strategies; and reluctance of doctors/providers to embrace the Web as a tool for business and communication with other professionals and patients.

A survey by **Gomez Advisors** (<http://www.gomez.com/>) found the plethora of health-related content online may be one of the biggest disadvantages. Of the 12,000-plus individuals surveyed by Gomez, 77 percent indicated they have previously searched online for health information. But 30 percent of the consumers were indifferent when asked which health site they would use if restricted to only one. .

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The Gomez survey also found the top motivation driving consumers to access health information online is when a loved one was diagnosed with a medical condition, indicating the majority of **health information seekers go online to help others**. The findings also suggest the majority of these online consumers are most concerned with the credibility of health information on the Internet and the trustworthiness of a site. In fact, 85 percent rated high credibility as the single most important attribute when selecting a health site.

Privacy is also an important factor during an online health consumer's site selection. Sixty-one percent of consumers indicated they are hesitant to provide their health information over the Internet out of fear that others will gain unauthorized access.

The Gomez survey also found what consumers really want is for health sites to provide **convenience and interactivity**. Of those polled, 41 percent said the ability to e-mail their own doctor the most valuable feature they'd like to see on an online health site. Other site features important to consumers include **the ability to obtain lab results online**, and **convenient tools** that allow consumers to verify health insurance eligibility and track reimbursements.

(For more discussion on this issue, see key point three below.) On the e-commerce side of the e-healthcare business, US consumers are expected to spend \$10 billion on health-related products online in 2004, according to Jupiter Communications (<http://www.jup.com/>). While Jupiter found that nearly half (45 percent) of online consumers access the Internet for health information, they remain skeptical about making health-related purchases. The consumers told Jupiter it was more convenient to pick up healthcare items when doing other shopping offline, and also expressed concerns about returns.

Key Point Two: Consumers are worried about privacy.

Successful online pharmacies will move beyond improving infrastructure to providing high-level services that will enable patients to comply with drug therapies, according to Forrester Research (<http://www.forrester.com/>). But unless they can provide a pharmacist or doctor, Greenfield Online says some consumers may remain skeptical.

Successful development of the online healthcare field will depend upon companies adequately handling consumers' concerns about privacy, ethical and security issues, according to a report by Cyber Dialogue. (<http://www.cyberdialogue.com/>)

The report, "Protecting Consumer Privacy in Online Healthcare," is based in part on a survey sponsored by the California HealthCare Foundation and the Internet Healthcare Coalition. It found that among the 37 million online users who do not currently use online health information, 6.3 million are not doing so primarily because of privacy and security concerns. The report identifies several measures that, if implemented, could have a positive impact on users' desires to release personal health information online. The study also explores the attitudes of African-Americans, Asians and Latinos towards online healthcare.

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In particular, online health seekers are concerned that insurers could use private personal health data to limit or affect their insurance coverage, or that employers could use such information to limit job opportunities. In fact, many Internet users fear that the mere act of searching for general health-related information online may bring repercussions from insurers and employers.

Other findings in the report include the fact that 49 percent of Caucasians online seek health information online, compared to 38 percent of African Americans, 37 percent of Asian Americans, and 29 percent of Hispanics.

Consumers are uncertain whether personal health data are protected by law and confused about whom should regulate Internet health information.

e-Health consumers are most likely to trust their physicians, medical institutes and associations to maintain the privacy of their personal health information; they are least likely to trust pharmaceutical companies, Web portals and online drugstores.

Key Point Three: Consumers are interested in buying online but perceive problems.

US consumers are expected to spend \$10 billion on health-related products online in 2004, but they are unimpressed by the current online offerings, according to research by Jupiter Communications. (<http://www.jup.com/>)

Nearly half (45 percent) of online consumers access the Internet for health information, but they remain skeptical about purchasing health products online. In a survey of more than 1,600 online consumers, Jupiter found that 49 percent of respondents stated they do not buy health products online because they feel it is more convenient to pick up items when doing other shopping. The consumers also expressed concern about difficulties returning items to an online merchant and slow product delivery.

With surge in consumer online health commerce from \$200 million in 1999 to \$10 billion by 2004, will be fueled by several factors, according to Jupiter Communications: a burgeoning health sector with well-financed players spending marketing dollars feverishly, a growing online population that is more comfortable with shopping online, and the emergence of women as online buyers. The commerce dollars for the online health segment are highly fragmented.

Pharmaceutical sales will account for about \$4.5 billion of the total \$10 billion spent in 2004, representing a dominant 45 percent of online health spending; however, only 2.5 percent of that \$4.5 billion will have shifted from the traditional channel, because players will continue to struggle to adequately address reimbursement issues.

Nutraceuticals will generate \$1.7 billion, or 17 percent of the online health market, in 2004. This represents a channel shift of approximately seven percent in this category, which includes

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vitamins and other herbal supplements.

Sales of personal care and over-the-counter (OTC) products will reach \$2.3 billion and \$600 million, respectively. Similar to the nutraceuticals segment, a multitude of players will mark the competition for dollars in these categories.

Jupiter's research also showed that online advertising dollars for the health space will grow from the \$100 million in 1999 to a still-modest \$700 million by 2004. Online health will only represent five percent of overall online ad dollars, a figure too low to significantly impact the multitude of existing content players. According to Jupiter, this suggests the market cannot sustain the current glut of players in the healthcare segment and a shakeout looms. It also implies that despite the impressively high margins advertising affords, content players cannot live by ad dollars alone and that convergence with commerce, and ultimately, connectivity players is thus inevitable.

Consumers have also expressed concern about healthcare-related content on the Web. A survey of consumers in Michigan found that only 29 percent of those surfing the Internet have a high level of trust in the health information they find online. More than half (59 percent) indicated they have only a fair amount of trust in what they find, according to the survey, which was conducted by MEDSTAT Group.

One-third of consumers surveyed used the Internet for health information in the last 12 months, according to the survey. Of most interest to these users is disease-specific data, with 82 percent indicating they used the Internet to gather such information. General and preventive health information was also popular, with 63 percent of users searching the Internet for it. The survey also found that consumers' trust of the health information they find on the Net is greatest when it's sponsored by a recognized organization or healthcare leader, such as the National Cancer Institute. Seventy-one percent of households said they have a high level of trust in information presented with such sponsorship. In contrast, information sponsored by a pharmaceutical company is viewed skeptically by consumers, with only 20 percent indicating a high level of trust in such data. The MEDSTAT survey found the respondents trust friends and family above all else for information about doctors and hospitals.

(For more on this topic, see key point two above.) aInternet users are also wary of the information they share online relating to their personal health care, according to a survey by Cyber Dialogue and the Institute for the Future, sponsored by the California HealthCare Foundation (CHCF) and the Internet Healthcare Coalition (IHC).

According to the survey of 1,000 US online adults, 75 percent of the respondents seeking healthcare information on the Internet are "concerned" or "very concerned" about the sites with which they've registered, sharing their personal information with a third party without their permission. Despite this, the survey found consumers are willing to share a range of personal
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information if it is used to enhance their online experience and is not subject to unwarranted or undisclosed sharing or abuse.

The survey also found that consumer confidence in a site is boosted if it is recommended by a user's doctor; has a privacy policy that states information will not be shared; gives users the opportunity to see who has access to their profile; and allows users to make choices about use of their information. The factors with the biggest negative influence on users are if a site shares information with advertisers or marketing partners; automatically collects information about the users; and if the site is sponsored by an insurance or pharmaceutical company.

II. What Consumers Expect

The proliferation of Internet connectivity and the growing number of quality Web sites has transformed consumer expectations for a quality Web experience. People want their Web connections to be faster, better, and cheaper, but they also want a high-quality online experience—one that will make them want to return again and again.

To that end, what we're seeing are more and more integrated marketing communications and creative partnerships with providers. **WebMd** (<http://www.webmd.com>) has done a terrific job in this regard, creating a partnership with Sports Authority and **HEALTHSOUTH** (<http://www.healthsouth.com/>) to offer free gift certificates to Health South patients and do promotions to Sports Authority employees—using signage in Sports Authority stores, having columns in employee publications. . Even more important, last month they partnered with **HealthSouth** to offer free mammograms with PSAs done by Gillian Andersen of the X-Files and other promotions on Rosie O'Donnell's. And they've also developed creative partnerships with HealthNetwork, (<http://www.thehealthnetwork.com/>) which is owned by the Fox Network, to carry all of their promotions. In the future, I think we're going to see more creative partnerships between large media companies and portal sites as is the case with CBS and Medscape (<http://cbshealthwatch.com/>) between real-world and online stores and portal sites, and between healthcare providers and portal sites.

Following are some changing expectations of consumers:

- 1. Consumers expect providers to deliver on the basics: online job search, a strong search function, easy navigation, an online provider directory, and consumer information integrated with service information.**

Example: <http://www.rush.edu>

- 2. Consumers expect high quality content—either created by the provider or delivered through licensing relationships with vendors. Editorial boards and codes of ethics and**

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seals of approval have become more important than ever.

Examples:

Healthgate (<http://www.healthcare.com/>)

Internet Healthcare Coalition (<http://www.internethealthcare.org/>)

HON (<http://www.hon.ch>)

On the one hand,, we have increasingly slick and sophisticated directories such as Health Street.com (<http://www.healthstreet.com/>) Who would have thought we'd see a site like Health Grades.com where patients can go on and find information on the supposedly best health plans, hospitals and doctors, and with special features like a directory of mammography facilities. Consumers demands for quality information are being fulfilled on the Web, by sites such as Group Health Cooperative which has always written about quality, to **Memorial Care** (<http://www.memorialcare.com/>) which publishes its reports cards to **Health Partners** (<http://www.healthpartners.org/>) , which offers users charts where they can compare hospitals and patient services. Who would have ever thought we would see a site like **surgery .com** (<http://www.surgery.com/>), where potential patients actually get to compare outcomes of physicians if only in the form of pictures and in the process learn a little bit more about plastic surgery.

3. **Consumers expect interactivity and tools—the opportunity to evaluate their health and to get involved in staying healthy.** Programs such as Well Med, (<http://www.wellmed.com/>) which offers a tool called Well Quotient and Personal Health Manager. And now, based on the scores people get in Well quotient they can visit sites such as My Daily Health (<http://www.murrayhill.com/>) and interactive, rewards driven health promotion service available to employers, insurers, and healthcare providers. At the core of the service is My Daily Health Check which encourages people to earn incentives and use their own personal health page to accrue My Health Points , which can be designed by whoever is licensing the content.

By using Myhealthcoach.comn <http://www.myhealthcoach.com>, users can get health information, personalized consultation and live interaction with credentialed health professionals. The site pairs the users with professionals who are willing to work live online to coach users to the healthy lifestyle they want.

Users' health needs are assessed in a variety of areas including fitness, weight loss, stress management, and motivation for changing lifestyle. The information is gathered on a confidential basis and used only by the coach to develop a customized plan for the subscribing user.

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Education materials, health goals, links to other web sites, and messages from the coach are highlighted in the plan. The site also offers one-on-one chat, which allows the user and coach to have live, real time conversations.

To subscribe, consumers access the site, complete the information form, and wait for a coach to contact them within 48 hours. The cost of the service is \$24.95 per month. The company behind myhealthcoach.com has also developed SeniorWellnessCoach at <http://senior.myhealthcoach.com>.

Overall, the site seems to be genuinely interested in matching users (subscribers) with coaches through completion of a personal goals survey and health questionnaire, implementation of a philosophy based on the stages of change, and development and execution of a personalized plan. Also notable are live online coaching sessions and user access to a personalized Web page that includes health goals, a goal tracking log, and educational materials and links.

As an alternative there are highly popular sites such as Asimba.com which provides features such as "Ask the Asimba Experts" and "Consult a Coach." These features provide users access to experts specializing in fitness, sports, and health information.

"Ask the Asimba.com Experts" is a free way for users to get fitness, sports, nutrition and health questions answered by professionals. Users can post a question to an expert via the Asimba.com Web site and get a response from the expert within 72 hours. The answer is delivered via e-mail to the user as well as being posted to Asimba.com for others to view.

For those users looking for even more personalized services, Asimba.com's "Consult a Coach" tool provides users with an online personal trainer. Through Asimba.com's partnership with EXP.com, members can choose a professional coach after viewing profiles and ratings of coaches from several accredited sports associations.

These coaches can be used to enhance a training program, assist with nutrition advice, or provide injury prevention and rehabilitation support. Members are billed at the end of their session with their personal coach.

OnHealth.com's new interactive Symptom Checker

(<http://onhealth.com/ch1/resource/symptomchecker/index.asp>) puts the tools for assessing common ailments and where to turn for treatment right at consumers' fingertips. Developed for the Internet by OnHealth.com with content from Harvard Medical School's Family Health Guide (published by Simon & Schuster), the Symptom Checker takes users through a series of simple questions and answers, narrowing down possible causes of the symptoms and helping users determine how they may be able to care for themselves and when they need to contact a doctor. The Symptom Checker covers over 70 general, female, male and pediatric symptoms -- from anxiety and depression to numbness, swollen glands, back pain, bladder problems, breast lumps, Copyright Joyce Flory, 2000. Please do not reproduce in written or electronic form without the written permission of the author. 312/944-3654; gojoyce@aol.com; fax: 312/337-6537.

constipation and fever.

4. Consumers expect a “fun” online experience. The Internet is, in many ways, a playground for adults.

This is the realization on the part of some site developers—most of whom came to healthcare from left field--that healthcare is more than diseases and conditions; Healthcare is about living well. These people understand that the healthcare isn't just about conventional definitions of staying well; it's about the way you choose to live your life, and every part of life can play a role. Who better understands that boomers want to know more about talking calcium supplements than **Third Age.com** . (<http://www.thirdage.com/>) which talks about money, family, kids, relationships, and travel, and of course, health. They've always got something going where it's partnership with Quaker Oats to lower cholesterol or giving away a car in a sweepstakes. And **BabyCenter.com** (<http://www.babycenter.com/>) has the same sense of play and fun about everything feature they add--from the daily poll which today was the question: Are you becoming your mother? to its baby of the century feature and Halloween Costume contest, journals, and diaries. What these people really understand—and what hospitals, health systems, and health plans are just beginning to understand-- is that the Internet is a play pen for adults. It's about content and information, but it's also about making connections—what people call community—and having a good time. Small wonder Baby Center is one of the finalists in the Global Information Infrastructure awards.

5. Consumers expect community—a place where they can share stories, experiences, and ideas. Consumers derive strength from knowing they are of help to other people in their situation.

Developed by Always, Tampax and Alldays, BeingGirl.com is for teenage girls. Teens can post messages on a bulletin board and ask questions of healthcare experts about topics such as puberty, menstruation, relationships and health. Also on the site are contests, links to free product samples, and an interactive area where girls can learn the point-of-view of a teen boy.

BeingGirl.com was driven by an advisory board of teenage girls. The site therefore offers more than 500 articles on topics the teens have said they would like to learn more about, including premenstrual syndrome (PMS), a first gynecology exam, sex and dating, and drugs.

To address girls' expressed needs to have fun, the site offers features such as Ms. Period Face, screen savers such as the Super Femmes, and dancing tampons.

The site is nicely written and designed for the teenage audience. Subdivided into the general topics of mind and body, sex and relationships, and menstruation, the site offers plenty of animated features such as My Solution, Quiz Zone, Self Discovery, Private Issues, Everything U
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Need 2 Know, Ask Iris, Total Opinion, Girl Vine, Laugh Out Loud, Your Turn, and Contests. In that sense, this is a model for communicating with a teenage constituency.

Users have created their own communities. Steve Dunn was so frustrated with his search for decent information that he actually created his own site called **Steve Dunn's Cancer Guide** (<http://www.cancerguide.org/>). Today, Steve is cancer free but people all over the world benefit from his online knowledge which is continually updated. And consider the story of the woman who had to have a mastectomy. She decided she would have it broadcast on **The Health Network**, formerly AHN.com, the site that gave us the first live birth on the Internet. To some people her decision would have been looked at as morbid. But to the woman who was going through it, it turned into an opportunity to share her experience, to let other women know about a special procedure known as a skin sparing mastectomy, and to give comfort to people and let them know they were not alone. They had options and they could take control. So now when women go to that site they can still learn more about skin sparing mastectomies.

Cyberdiet (<http://www.cyberdiet.com/>) won one of the ehealthcare world awards the last time around. But highly specialized sites like Dietwatch.com (<http://www.dietwatch.com/>) which is owned by a company called SoftWatch.com go a long way by offering people practical tools like nutritional calculators, reports and graphs, exercise tracker and online community. Now if we could only get the computer to make us give up chocolate. I think you can make the same point about the pharmaceutical industry. Think of what they've done with sites such as Café Herpe (<http://www.cafeherpe.com/>) with the diseases of herpes. They've made the whole condition a little lighter and less forbidding and helped people feel like they're not alone. Cyberdiet is an interesting company because it was bought by Mediconsult.com, which bought Pharmed.com, Physicians Online, Heart Info.org/ and a site that deals with fertility. So what they've done is to create this deep network of sites that meets the needs of just about everyone.

With the opportunity to come together with others, they also want the opportunity for personalization. Web sites are moving beyond the personalized e-mail. Cancerfacts.com (<http://www.cancerfacts.com/>) has launched a terrific tool called Cancer Profiler that doesn't just give people more information. It pulls research from clinical studies to give each user personal reports on their situation. Patients can update their profile at any time and get even more information on treatment outcomes, side effects--everything that cancer patients want to know, including a list of questions to ask their healthcare provider. Right now, it's available only for prostate cancer, but it will soon be available for other types of cancer too. And when My Life Path (<http://www.mylifepath.com/>) developed its e-mail feature it allowed people to choose from among eight different categories to get exactly the kind of e-mail alert they wanted with hyperlinks to specific articles built right into the e-mail. When users log into the **Catholic Healthcare West site** (<http://www.chwhealth.com/>) they can create their own personalized health profile where they can store data like blood pressure, height and weight, lab tests or dates of doctors visits, even sending themselves e-mail reminders of tests or appointments. What they're

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moving toward now is a full program of hospital specific newsletters so that if you enter your name and zipcode you'll be able to get generic news as well as news from your local hospitals. And all of this ties in with what CHW has done in licensing content and health risk assessments from Health Central (<http://www.healthcentral.com/>).

6. Consumers expect more than traditional medicine. They want reputable information and shopping opportunities related to alternative medicine.

The Natural Pharmacist (<http://www.tnp.com>), for example, includes the Natural Health Encyclopedia, a searchable database of herbs and supplements, health conditions and drug interactions; Conditions in Depth, a closer look at medical conditions such as arthritis and diabetes; and the For Professionals section, clinical monographs and drug interactions written for physicians and pharmacists. This content is showcased on the TNP.com Web site, which also features Health Tools, Topics of the Day, and Answers from Our Experts.

7. Consumers expect a “feel good” online experience. They come to the Web having already experienced well-designed and easy-to-navigate sites in other interest areas and sectors. The bar is now being raised with the integration of multimedia.

Among the services available through Cancerpage.com (<http://www.cancerpage.com/>) are a medical marketplace that supports the needs of cancer patients. Merchandise is divided into the categories of daily living aids, special needs products, pain relief and relaxation products, books and tapes, insurance and legal services, and financial planning..

Other features include Ask Our RN, Ask a Chaplain, daily news, chat, message boards, personalized user pages, stories and experiences, physician and service directories, and Journal of Hope.

Organized under the themes of inform, connect, and empower, each page within the site is focused on a specific type of cancer such as breast, colon, lung, lymphoma, prostate and skin

The site also offers TrialMatch , a clinical trial matching tool, and MedsChex, which helps to check for harmful drug interactions. Users also have the opportunity to read plain English articles, share experiences, and keep a journal of their diagnosis, treatment, medications, and feelings.

Cancerpage.com also continually adds new features such as a series of special reports on cancer and sexuality, which were integrated into the site in August 2000. More than 7,000 people
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participated in the site's Ribbon Project, which involved a three-dimensional signature and personal testament.

8. Consumers expect that their privacy will be protected.

For this reason, more sites are updating their privacy policies and going after credentials such as those provided by Truste.

The TRUSTe privacy seal is an online branded symbol that signifies that a Web site has posted a privacy statement and, moreover, that the company's data gathering and dissemination practices address the elements of disclosure, choice, access and security outlined in the Federal Trade Commission's fair information practices. Specifically, TRUSTe's licensees must:

- disclose their information gathering and dissemination practices;
- give users choice - through opt-in or opt-out - of any secondary uses of their personal information;
- provide users with access to their personal information to correct any inaccuracies; and
- ensure that reasonable security mechanisms are being used to protect the data that is collected.

TRUSTe ensures that its licensees are in compliance with their privacy statement through regular monitoring and the TRUSTe Watchdog, an alternative dispute resolution mechanism for consumers.

9. Consumers ideally expect one-stop shopping—a place where they will be able to do everything—from e-mail their doctor to shop for supplies.

What we're seeing is the emergence of the vertical portal—one some people call the mega portal—such as Oncology.com <http://www.oncology.com>

Oncology.com is an online resource dedicated to improving the quality of information available to those affected by cancer. The site targets specialized groups in the cancer community: Newly Diagnosed, Living With Cancer, Caregivers, Physicians, Nurses and Allied Professionals, while Cancer Buddies, Oncology.com's community center, hosts discussions that allow for sharing of experiences.

Users can skim feature articles on issues such as the woman who spurred a major study of environmental risk factors for breast cancer, chat live with a site staff member, access daily news, meet a cancer buddy in the discussion area, or sign-up for a weekly e-newsletter.

In summer 2000, Oncology.com entered a partnership with SelfCare.com that enables users to purchase specialized health and cancer-related products online.

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This site is extremely well organized and varied in that it serves the needs of multiple constituencies, including patients, caregivers, and a variety of healthcare professionals. At the same time, users can easily access information related to just about every type of cancer.

10. Consumers increasingly expect and want connectivity with their physician's office and with their health plan.

Healthcare is getting easier--moving gradually toward transactions. When people talk about the Internet, they talk in terms of juggling three balls in the air. Number one is the ball of information. Number two is the ball of personalization or customization--getting things that are meant for no one but you like your own personalized e-mail. Number three is transactions--being able to do in the virtual world what you do in the real world. **Kaiser Permanente** (<http://www.kaiserpermanente.org/>) has a special area just for members at **kponline** (<http://www.kponline.org/>) There members can make and confirm an appointment online, not just request one. And they 'll be able to go through an interactive exercise that will help them choose the right doctor by completing nine different statements through a special project done with Robert Wood Johnson and then, of course, move to a directory where you can search for information. But that's not all. Kaiser is about to pilot a program that allows for online fulfillment of pharmacy refills . And they look forward to the day when their members will be able to log onto a personal Web site to get test results, a personal note from a physician, and links to resource, and most important disease management from a online counselor. The same thing is happening with Blue Cross of California (<http://www.bluecrossca.com/>) where the plan has developed an entire member self-service area where members can find providers, get a new ID card, and check the status of claims.

And if you go to sites like United Healthcare, **Blue Shield of California (MyLifePath** <http://www.mylifepath.com/>) **Blue Cross of Minnesota**, you realize that they're moving in the same direction--using a base of solid content as platform to help people do online everything they can do in the real world. -- The option to create personalized home pages that are updated every day with health care articles that interest you most

-- The option to register for free e-mail newsletters about health topics you select

-- Quizzes, polls and on-line shopping

-- Recent articles and research on hundreds of health topics

-- The ability to set up online calendar reminders such as doctor's appointments

And they're giving people the local information they really crave. It's interesting that when they were doing focus groups for the revamp of **Blue Cross and Blue Shield of Massachusetts site**, <http://www.ahealthyme.com/>) they found out that one of the things people wanted most was information on how and where to find places to do things like hike, bike, and play basketball, which proves that what you think patients want isn't always what they do want. They also have horoscopes--I think the first health plan site in the country to do that-- and this Christmas season

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they wrapped buses in the Boston market to promote their site. Also important is the effort of many health plans to develop a local and regional identity by purchasing banner ads on local sites such as <http://www.boston.com/> and <http://www.startribune.com/> and in becoming health content contributors to city sites such as Hampton Roads and Arizona Alive.

11. Consumers expect the resources and tools to manage their health or their disease or condition. They expect that what used to happen over the phone or through home visits will happen online.

It's just beginning, but we're discovering ways to help people live better and more active lives with chronic conditions. We already have some terrific models from the academic community with programs like **CHESS from the University of Wisconsin** and the Problem Knowledge Coupler from the Maine Commons Institute which was profiled in the Wall Street Journal. . But we're also seeing programs like <http://www.mybladder.com/>, a product of PDHI that helps people track and monitor their triggers and get the support they need. Imagine being able to track your symptoms, understand your triggers, get advice from professionals, and meet other people who are like you. Is it perfect? No, but it's a wonderful start. And of course, there's my allergy, my diabetes, my blood pressure, and my everything else. Just last week, PDHI announced a site called My Blood Pressure.

In this category we'd also have to put LifeMasters Online (<http://www.lifemastersonline.com>, which allows people with diabetes, congestive heart failure, coronary artery disease and hypertension to get access to patient education, monitoring and support. Because of LifeMasters relationship with the Health Network, users can log in and get charts, graphs, and guides on their condition. If people want to subscribe to a higher level of service they can get access to a personal health diary, health reminder calendar, online patient education and coaching, e-mails from a Lifemaster nurse, and customized medical news.

Right now at **Crozer Keystone Healthcare System** there's a project going on called **Senior Support Online** where they've gotten funding from the government to put Web TV's in the homes of frail elderly patients. And in Oak Park they created a program called **Every Block a Village** where they've given low income people Web TVs to see how their lives can be changed.

Disease management will undoubtedly be aided by a variety of portable devices. A San Francisco conference on portable appliances showcased the announcement of a portable, wearable appliance from **Body Media** (<http://www.bodymedia.com/>) that would transmit vital signs to a secure Web server and send the person e-mail messages like: "You need to visit relaxation.com." or in my case, "Eat that donut and you die." Bill Gates says we'll be carrying around little screens; others think we'll be wearing our computers. Right now we've got programs like **My**

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Health Hero (<http://www.healthhero.com/> where health providers sit at their computers talk to patients in the form of questions reminders and alerts. Patient to providers through a little device called a Health Buddy that looks a lot like a pager. Is it the ultimate appliance? Probably not, but it's a start. And the same thing could be said of **Health Sentry.Net**.

(<http://www.healthsentry.net/>) which is now being tested as a remote connectivity device that would allow diabetic patients to transmit data from any portable glucometer to their physicians via the Internet. And there's even a device—not yet approved by the FDA—where you can stick your finger in a special appliance next to your computer and send the results to your healthcare provider.

12. Consumers want a quality shopping experience

All the sites that were listed in Power rankings done by Forrester .com weren't around in the first part of 1998. And now we have a site like Net Grocer (<http://www.netgrocer.com/>) opening a new diabetic solutions store with 750 non-prescription medical and non-perishable food products--everything from glucose monitoring kits to cookies, chocolates and sugar-free dessert mixes. Go a site like **Mother Nature** (<http://www.mothernature.com/>) and you see the same attempt to deliver quality products with a higher level of content such as a health encyclopedia. And with Mother Nature, there's always something new—not just a national advertising campaign, special correspondents sent to other countries who send back information on alternative treatments. Even sites like **More.com** (<http://www.more.com/>), another online drugstore, have partnered with Care Guide.com to give users access to daycare and eldercare information. And what about a site like **Intelihealth Healthy Home** that rates and evaluates its product offerings and offers money-back guarantees—and is just about to launch partnerships with hospitals and health systems where you can get a commission on everything ordered from a link off your site. And there's cost savings too. I just did a search of PlanetRx and DrugStore.com and learned I could save more than 30 percent off what I was paying at my local Walgreens.

The good news is that e-commerce is coming to hospitals and health systems, too—not just through affiliate relationships with Barnes and Noble and sites such as **Fog Dog** (<http://www.fogdog.com/>) It's also happening because more systems are looking at how to put their real world enterprises. **The Children's Art Project** (<http://www.childrenartproject.org/>) of MD Anderson Cancer Center is putting its entire line of children's art products online, with Christmas serving as a test case. And **Seattle Children's Hospital** (<http://www.seattlechildrens.org/>) has put its gift shop online with an eye on donating some of the profits to caring for poor children.

As of October 1, 1999, the online store had generated \$5,000 philanthropic dollars through a combination of online product purchase and online donations. But some of the benefits have been more than financial. The store can centralize large orders for promotional items used in events like health fairs. And the hospital can make sure that the products meet its standards and carry its Web sites address.

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13. People want sites that speak to their interests.

Kids Health.org is full of articles, images, sounds and animations for children, parents, and pediatricians. Most interesting, it's the product of the Dupont Hospital for Children, the Nemours Foundation, and the Nemour's children's clinics in Florida. Now, they have a sister site called Kids Health at the AMA and new features for kids called My Body, research News Parents can use, and even a special healthcare site just for teens. And this is just one example of how a health system invested in the Net and is now bringing its content out for licensing. Just about all of the general teen and women's sites and increasingly the kids sites have healthcare components. It's not surprisingly that even the pharmaceutical companies are getting into the act with **Pfizer Fun Zone** (<http://www.pfizerfunzome.com/>), which encourages kids to get interested in science. And when Baptist Healthcare wanted to boost its pediatric business, it tested and created a new character called PD Parrot (<http://www.pdparrot.org/>) When it was PD Parrot's turn to be launched they didn't just do a standard Web launch; they created a Saturday morning hatching party where PD come out of a giant egg as kids and parents counted down. People left with a PD Parrot coloring book, stickers, bookmarks, pens, birthday cards—things that are continued to this day as PD makes visits to local schools and as Baptist makes plans to integrate PD in the school curriculum.

The place that understands women more than any other entity is a company called Ivillage (<http://www.ivillage.com/>) because they've been able to blanket every area of a woman's life.

APPENDIX: RELATED PREVIOUS E-HEALTH TRENDS

MAJOR TRENDS IN E-HEALTH

Trend One: Disease management is taking off. While not completely contacted to care delivery, the applications are becoming increasingly sophisticated and useful to patients and providers. Growing numbers of healthcare providers are becoming interested in investing in disease management programs

Some of the Players:

Diabetes Well

<http://www.diabeteswell.com>

DietWatch

<http://www.dietwatch.com>

LifeMasters

<http://www.lifemastersonline.com>

Confer

<http://www.confer.com/>

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Physicians Online

<http://www.pol.net>

PDHI

<http://www.pdhi.com>

ProMedix

<http://www.promedix.com/>

The Daily Apple

<http://www.thedailyapple.com/>

Health Hero Network

<http://www.hhn.com>

Anthem Blue Cross Blue Shield

<http://www.anthembcbsnh.com>

LifeChart

<http://www.lifechart.com/>

Accordant

<http://www.accordant.com/>

Lifemetrix

<http://www.lifemetrix.com>

Some examples:

e-MEDx unveiled three new products: e-SelfCare for Diabetes, e-PHA and e-Consult.

e-SelfCare for Diabetes provides an interactive communication vehicle for diabetics, physicians and care specialists. A patient fills out a diabetes-specific risk assessment questionnaire every month and an ongoing health diary once a day or week. An assessment graph is produced, offering feedback to the diabetic. The patient forwards the information to a primary care physician electronically or by printing it prior to an office visit. The assigned online clinician is automatically reminded to review each patient's assessment information. If the data predicts poor health and/or high risk factors, the clinician contacts the patient to evaluate the situation and perhaps calls the patient's physician.

e-PHA works by having a health plan member completes an e-PHA online health survey.

The data predicts the likelihood that the person might need help in the coming year. The person gets an in-depth report that includes ideas for improving his health. e-Consult works in a similar way. Patients complete an online medical history form before an office visit. The office is notified that the form has been filled out through an online alert which is linked to the day of the patient's visit. The day before or morning of the patient's visit, the provider's office either prints out the form and gives it to the physician or the physician reviews the form online. After the patient's visit, the patient updates the information on the form. The form automatically codes the visit.

LifeMasters Supported SelfCare has expanded its health management offerings to include both

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prevention and wellness. The site's features include coaching emails; health lessons and reminders; condition-specific diet and nutrition information; exercise planning and tracking; smoking cessation; a health calendar; medication schedules and medication compliance monitoring; a health data archive; and an emergency medical record with a family history table. All are tailored to a subscriber's requirements. The enhanced program is also available through a strategic partnership with iVillage.

CorSolutions Inc. (<http://www.ecorsolutions.com/>) has contracted with HIP Health Plan of New York to provide its members with a congestive heart failure (CHF) disease management program. In the CHF program Disease Managers, who are trained CorSolutions cardiac nurses, perform an initial data gathering assessment with members by telephone. A site visit is then made by a contracted home health agency at the member's home, followed by regular telephone encounters by Disease Managers with the member. The nurses now work with members by telephone using a disease management system called MULTIFIT, a protocol-based clinical decision support system that was developed at the Stanford University Department of Cardiac Rehabilitation.

In early May, Regence BlueCross BlueShield of Oregon announced that it had partnered with LifeMasters Supported SelfCare, Inc. and Interactive Heart Management Corporation (IHMC) to enable subscribers with high-risk medical conditions to monitor their health using HeartMasters Web-based health management program for coronary artery disease and congestive heart failure.

eCorSolutions Inc. announced a partnership with Humana Inc. to migrate traditional disease management program online. By visiting the Humana Web site at www.humana.com, visitors can link to the eCorSolutions program that will provide access for patients enrolled in the disease management program, as well as online education and health assessment tools for members. Patients will be able to interact with clinicians via the Internet and share experiences in patient communities.

Trend Two: The healthcare world is going wireless.

Some of the Players

Iscribe

<http://www.iscribe.com/>

Autros

<http://www.autros.com/>

Parkstone

<http://www.parkstonemed.com/>

WirelessMD

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<http://www.wirelessmd.com/>
 EPhysician
<http://www.ephysician.com/>
 eProcrates
<http://www.epocrates.com/>
 LifeChart.com
<http://www.lifechart.com/>
 MDInTouch
<http://www.mdintouch.com/>
 MedicinePlanet
<http://www.medicineplanet.com>

ParkStone's wireless gives physicians access to patient information, insurance guidelines, and submissions such as electronic prescriptions and changes in patient status. Physicians use this tool for managing and writing prescriptions, providing formulary guidelines, ordering diagnostic tests and generating referrals. The result is that physicians can streamline workflow, automate paper-based processes, and reduce disruptions such as pharmacy callbacks.

WirelessMD provides a medical data retrieval system on multiple wireless hardware devices that function such as a pager, email, fax, phone and answering service in one handheld device. The application allows physicians to maintain two-way communication with office and hospital databases, obtain patient clinical information, acquire CME credits, prescribe medications wirelessly, and access non-medical applications. Physicians can communicate with pharmaceutical manufacturers, managed care organizations, pharmacy retailers, and the Internet via two-way alphanumeric pagers, handheld digital assistants, and wireless laptops.

ePhysician, a developer of a Palm-based wireless handheld medical device, allows healthcare professionals to prescribe medications, schedule patients, and view allergy and formulary information through a Palm handheld computer and the Internet.

Physicians using eProcrates qRx can check whether a drug is potentially harmful when taken with other medications. Via the Internet, physicians automatically receive updated clinical information from the eProcrates clinical editorial board and content partners.

LifeChart.com is an Internet based service that connects patients with their doctors and helps suffers of chronic conditions take greater control of their health. Using portable home testing devices, patients can monitor and report their condition on the LifeChart Web site, by accessing the Web via a WAP phone. With Web access from any location, the doctor can then prescribe medication or schedule office visits from anywhere.

MDInTouch, Inc. is an Internet portal designed to meet the needs of healthcare professionals. .
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The MDinTouch Internet solution extends computing beyond the PC by using WAP to make patient information available anywhere. With WAP, a mobile phone can be used to access medical information such as patient reports, medication lists, and allergy lists.

MedicinePlanet, Inc. is dedicated to providing travelers with health services, information, tools and products before, during and after trip. The company's Web site, <http://www.medicineplanet.com>, offers personalized pre-trip planning tools, country-by-country information and specialized content, as well as travel insurance and travel health products. MedicinePlanet is using WAP to provide travelers with access to healthcare assistance services and information resources while on the road.

Trend Three: The Internet is enabling better connections between patients and providers, as well as between providers and payors.

Some of the Players

Beansprout.com

<http://www.beansprout.com>

Healinx

<http://www.healinx.com>

Medivation

<http://www.medivation.com/>

Mykidsdoctor.com

<http://www.mykidsdoctor.com/>

W3Health

<http://www.w3health.com/>

Medscape

<http://www.medscape.com>

Health Vision

<http://www.healthvision.com/>

Axotl

<http://www.axotl.com/>

98point6

<http://www.98point6.com>

98six.com

<http://www.98six.com/>

MedPearl.com

<http://www.medpearl.com>

HealtheonWebMD

<http://www.webmd.com>

CareInSite

<http://www.careinsite.com/>

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PointShare

<http://www.pointshare.com>

PassportHealth

<http://www.passporthealth.com/>

ClaimsNet.com

<http://www.claimsnet.com/>

Salu.Net

<http://www.salu.net/>

dbMed

<http://www.dbMed.com>

ValueMed

<http://www.valumed.com>

Axolotl Corporation will launch a Private Patient Portal through which physicians can send health information and clinical results to their patients, with patients accessing interactive tools and content. Using an ID and password, patients will log on to their personal Web page to view their latest lab results, check medication lists, refill prescriptions, read advice from their doctors, with condition-specific questionnaires and assessment tools, and follow links to customized information about their conditions. Patients might also ask or answer questions via e-mail, schedule and review appointments, or pick up referrals to a specialist. The Private Patient Portal is available as a standalone product or as an add-on component to Axolotl's suite of clinical messaging products called Elysium.

MedPearl.com has introduced Web-based initiatives aimed at consumers. Among the offerings are a personalized health Web page offering doctor-patient communications, Web-based health commerce, online health assessments, and an online medical information card.

MyHealthRecord.com, a personalized health home page, links patients to health services and information linked to their physician. Patients can use these personalized Web resources to communicate with their doctors, check test results and other data, research health topics, and shop for products and services. Patients can track lab results, schedule appointments, request referrals, review medical records, and ask questions of nurses. MyHealthRecord also provides links to Web-based sources for prescription refills, over-the-counter drugs, vitamins, and medical supplies and devices.

Rethink Inc.'s national college health Web site, 98six.com, provides students with access to the administrative, clinical and health promotion functions of their campus health center. Students can go online using 98six.com to make appointments at the health center, check lab test results and submit prescription refill requests. College and university health center staff also benefit from online ordering of medical supplies, continuing education programs and support of third-party reimbursement functions that come from pro98six.com.

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Trend Four: Providers benefit from new Web-based tools that enhance care delivery.

Some of the Players

VitalCom

<http://www.vitalcom.com/>

HCPRO.com

<http://www.hcpro.com/>

ADAC Laboratories

<http://www.adaclabs.com/>

Medicalogic (medical record)

<http://www.medicalogic.com>

Epic (medical record)

<http://www.epic.com>

ichart

<http://www.ichart.com>

Siemens

<http://www.usa.siemens.com>

Mid America Heart Institute of Saint Luke's Shawnee Mission Health System in Kansas City, Missouri has become the first institution to allow physicians to view live monitoring information from a monitoring devices through VitalCom's Patient Browser.

HCPRO (<http://www.hcpro.com>) has unveiled a section of [accreditinfo.com](http://www.accreditinfo.com) to patient safety and the reduction of medical errors. In addition, HCPRO launched a free e-mail newsletter for healthcare professionals concerned with these issues.

ADAC HealthCare Information Systems (HCIS) (<http://www.adaclabs.com>) has introduced QuadRIS OnLine, a Web-based radiology report accessing application that allows physicians to view their patients' reports from anywhere. The application allows clinicians to view preliminary reports immediately after they are created instead of hours later when the final report is faxed to them.

eStellarNet, Inc. has revealed an enhancement of the Internet bill and report attachment product called StellarClip. Through StellarClipAV medical providers can electronically transmit audio-visual information to payers, while employers and insurance carriers can send video-based job analyses to the medical provider for review and comment. Other uses of eStellarNet-AV include transmission of investigation reports and films to providers and claims examiners.

WebViewer Patient Browser from Siemens (<http://www.usa.siemens.com/>) makes bedside patient data available to clinicians over a hospital's Intranet or over the Web in close to real-time.

Waveforms, vital signs and trends from any Infinity bedside monitor can be viewed remotely at

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anytime.WebViewer is a component of the Siemens Infinity Gateway Suite.

Trend Five: Providers are discovering ways to make their practices more efficient and effective.

Some of the Players

OfficefortheFuture

<http://www.officeofthefuture.org/>

Scheduling.com

<http://www.scheduling.com>

API

[http://www.api-wi.com /](http://www.api-wi.com/)

ZyDoc

<http://www.zydoc.com>

NotifyMD.com

<http://www.notifymd.com>

WebMD

<http://www.webmd.com/>

Superior Consultant

<http://www.superiorconsultant.com>

Virtmed

<http://www.virtmed.com/>

Neon

<http://www.neonsoft.com>

Automating Peripherals Inc. (API) has announced several Web-based products that streamline employee data management. TimePC enables employees to input and review their time and attendance and payroll/human resource information via a corporate Intranet or the Web..

ReportXpress is a tool that allows managers to view time card reports, make edits, track notes and approve time online. Navigator allows employees to access demographic and benefits information online. ActiveStaffer allows offices to do self-scheduling, while EdTrack allows employees to view course schedules online and enroll for courses.

Scheduling.com, an application service provider (ASP), has a solution that allows healthcare providers and clinics to schedule patients and resources via the Web.

ZyDoc.com, a developer of language models for speech recognition, has a suite of medical vocabularies for Dragon NaturallySpeaking Medical Suite version 4 from Dragon Systems Inc.

The ZyDoc vocabularies include terminology for each medical specialty, such as orthopedics or

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cardiology. Zydoc.com also offers an Internet medical transcription service called ZipDoc, which uses the ZyDoc medical vocabularies and Dragon NaturallySpeaking Professional version 4. Using ZipDoc, physicians dictate into hand held recorders and send the recordings over the Internet.

Healtheon/WebMD's WebMD Practice has expanded its range of offerings with Scientific American Medicine, Superior Health on WebMD, a channel on WebMD Practice that provides live business content, databases, decision support and advice, and WebMD OnCall, an answering service that provides coverage for physician practices through nine dispersed call centers. Users can get a general voice mailbox, with a toll-free number for forwarding non-urgent calls after hours, a personal voice mailbox assigned to each physician, where operator and patient calls are recorded and can be reviewed by the physician toll-free from any location, operators who take medical calls and handle medically sensitive messages, and daily recaps of urgent messages e-mailed to the physician's inbox.

The VIRTMED Charge Capture System allows a provider to record billable events at the point of care by entering procedure and diagnoses codes into a handheld device.

NEON's HealthSphere is comprised of three e-Business applications -- MedPortal, MedMerge and MedSecure. MedPortal allows healthcare professionals to view consolidated patient information in various clinical systems. Clinicians use a Web browser to access patient lists, fact sheets, order results from lab and radiology tests, and treatment profiles. MedPortal also provides a notification system to deliver updated information to a Web page that physicians can access daily or before doing rounds.

Trend Six: Creative partnerships are enabling e-health companies to achieve unprecedented results.

Some of the Players

Women.com

<http://www.women.com>

ebody.com

<http://www.ebody.com>

WellMed.com

<http://www.wellmed.com/>

MedPearl.com

<http://www.medpearl.com/>

Medicalogic

<http://www.medicalogic.com>

The Health Channel

<http://www.thehealthchannel.com/>

HealthMagic

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<http://www.healthmagic.com/>

NetPulse

<http://www.netpulse.com>

IHRSA

<http://www.ihrsa.org/>

GetFit.com

Stairmaster

<http://www.stairmaster.com/>

Women.com Networks, Inc., (<http://www.women.com>) has announced a two-year agreement with eBody.com, an cosmetic health, beauty and wellness site. more than 500 pages of new content and tools are being placed within Women.com's Fashion. The co-branded area connects Women.com users to news and information, first person accounts, "before and after" pictures, and answers from medical and dental professionals on cosmetic procedures.

MedPearl has announced a partnership with WellMed where WellMed's Personal Health Manager is being customized for Medpearl's consumer Web sites. These tools include health assessments, personal health records, interactive wellness and behavior modification programs, tailored e-mail, and customized news. The Personal Health Manager includes Health Quotient (HQ), Advanced HQs, WellTIPS (Tailored Improvement Programs), and WellRecord. Embedded in the WellRecord is the Consumer Health Terminology (CHT) Thesaurus, which translates common health words and phrases into medically accurate terms.

MedicaLogic, Inc.and Laboratory Corporation of America (LabCorp) have announced a joint -e-commerce relationship for the delivery of transaction-based lab services. The first customer to benefit from this service is the Los Angeles-based AIDS Healthcare Foundation (AHF), the largest community HIV/AIDS medical provider in the nation. Lab results from LabCorp are sent directly to the MedicaLogic data center, where they are distributed to a physician customer. The results are available for review within Logician, an electronic medical record (EMR) technology.Integration of lab results data allows providers to view lab results within the the patient's medical chart, including medications, allergies, and other medical history. Physicians can also graph trends.

Thehealthchannel.com has announced alliances with HealthMagic a provider of personal health management interactive applications, and Integrativ Medicine, an information provider in integrative medicine.

Netpulse Communications, Inc. and the International Health Racquet and Sportsclub Association (IHRSA) have announced the formation of a marketing alliance. Netpulse, which operates an Internet media network reaching fitness center users through exercise equipment outfitted with Netpulse's Internet appliance, is launching an offline consumer product-sampling program in the IHRSA-member fitness centers.Netpulse's Internet media network allows exercisers to surf the
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Web, shop, read their email, listen to music, watch TV, track workouts, customize workout programs, and participate in incentive programs.

GetFit.com, an online fitness site offering personalized fitness programs, has announced a partnership with StairMaster, Inc.. Through this partnership, GetFit.com features content in the form of videos featuring Stairmaster equipment and integrate Stairmaster equipment into its personal training programs.

Trend Seven: Vertical portals are rising in popularity.

Some of the Players

CancerSource.com

<http://www.cancersource.com>

CancerFacts.com

<http://www.cancerfacts.com/>

ChildofMyDream.com

<http://www.childofmydreams.com/>

Gazoontite.com

<http://www.gazoontite.com/>

FootHealthNetwork.com

<http://www.foothealthnetwork.com/>

Dr.SusanLove

<http://www.susanlovemd.com/>

CancerPage

<http://www.cancerpage.com/>

Diabeteswell

<http://www.diabeteswell.com/>

Drdrew.com

<http://www.drdrew.com/>

CancerSource.com is riding the celebrity bandwagon by offering a series of audiotaped interviews where celebrities talk about their experiences with cancer. The first in the series features Linda Ellerbee, a TV news reporter, writer and producer, and breast cancer survivor and Judith Light.

Child of My Dreams.com, a resource on infertility, has partnered with Sereno Laboratories to launch an interactive medications library, which makes it possible for patients to learn about how medications work, their possible side effects, and which pharmacies stock a complete line of fertility drugs. The medications library also addresses patients' concerns about multiple births, insurance coverage and treatment options.

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Dr. Susan Love, an authority on breast cancer and women's health issues, has announced the addition of two new features to her Website (<http://www.SusanLoveMD.com>): PaperChase, a tool for retrieving synopses of reports in medical and scientific journals, and Advocacy Avenue, which offers Web-hosting and links to local support and advocacy groups. The site also features a photo collection of post-surgical breast cancer survivors who've had various types of procedures.

Cancerpage.com gets some 10,000 user sessions per day, the majority of which -- 6,000 -- are considered unique visitors. The average time spent on the site for each visitor is over seven minutes. Visitors can communicate via email with oncology nurses through the "Ask a Nurse" feature and receive an answer within 24 hours.

Trend Eight: Providers are forging ahead with creative solutions to Web-based communication of information, marketing, connectivity, commerce, and care, but continue to face challenges related to funding, content infrastructure, and cultural change. Other missing site basics include on-site search engines, healthcare content integrated with service descriptions, employment listings, ask-the-expert features, intriguing provider directories, and easy navigation access.

Some of the Players

HealthCentral.com

<http://www.healthcentral.com> or <http://quickstart.healthcentral.com>

Consumer Health Interactive

<http://www.consumerhi.com/>

AhealthyMe

<http://www.ahealthyme.com/>

Mylifepath.com

<http://www.mylifepath.com/>

TheNaturalPharmacist.com

<http://www.TNP.com/>

Sentara

<http://www.sentara.com/>

Medformation.com

<http://www.medformation.com/>

Mayo Health Oasis

<http://www.mayohealth.org/>

Johns Hopkins/Intelihealth

<http://www.intelihealth.com/>

Sharp

<http://www.sharp.com/>

Emory

<http://www.emory.edu/>

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The Cleveland Clinic
<http://www.ccf.org/>

Licensing: Providers groups that are floundering or that want to upgrade their sites can benefit from licensing content or applications from companies such as adam.com, HealthGate, Medscape, or HealthCentral.com, HealthCentral, for example, has developed a private labeled QuickStart Web product that allows providers to improve Web presence in as little as two weeks. QuickStart Web HealthView Assessment Tools, for example, provides personal health profiles and recommendations on managing health. The HealthExplorer Knowledge Tools offer users Daily Health News from the Associated Press news service, keyword searches from the HealthCentral.com Library and Topic Centers grouped in five categories. Others sites such as Mayo are licensing their content to employers, as is KidsHealth.org.

Alternative Medicine: Companies like Consumer Health Interactive are licensing content from alternative medicine vendors such as TheNaturalPharmacist.com (<http://www.TNP.com>) and offering TNP.com's database on herbs, vitamins, mineral and supplements to sites such as Blue Shield of California's Web site, <http://www.mylifepath.com> followed by Blue Cross Blue Shield of Minnesota at <http://www.blueprint.bluecrossmn.com> and Blue Cross Blue Shield of Massachusetts at <http://www.ahealthyme.com>.

Personalization and Transactions: Oxford Health Plans, Inc. has announced the launch of its Web site (<http://www.oxhp.com>), which provides a personalized page called "oxhp.com/myoxford." Through "MyOxford," a member can complete 10 transactions, ranging from choosing a primary care physician or specialist to ordering materials to checking claims history. Benefits administrators also can assist their employees in managing their Oxford experience through "oxhp.com/youraccount," where they can perform six transactions, from replacing identification cards to requesting forms and other materials, to checking an employee's eligibility. Doctors and hospitals can do six different transactions, from checking an Oxford member's eligibility to filing a claim, to reviewing benefits, to inquiring about a referral. Brokers can complete 10 transactions, from determining eligibility to checking commissions.

Trend nine: E-procurement is taking off and slated to grow to \$348 billion by 2004, with 24% of of hospitals and 12% of physician practices purchasing the majority of their products online.

Some of the players
 SciQuest
<http://www.sciquest.com/>

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MRO.com
<http://www.mro.com/>
 Employease
<http://www.employease.com>
 BioSpace
<http://www.biospace.com/>
 Embion..com
<http://www.embion.cpm/>
 Medicalbuyer.com
<http://www.medicalbuyer.com/>
 Medibuy.com
<http://www.medibuy.com/>
 MedicalSuppliesUSA.com
<http://www.m,edicalsuppliesusa.com/>
 Neoforma
<http://www.neoforma.com>
 Promedix
<http://www.promedix.com>

Stimulated by increasing cost pressures and rapid turnover of products, a variety of electronic hubs, e-hubs, or market makers are forming to serve a single market segment within an industry such as Sciquest (<http://www.sciquest.com>), or to sell specific products and services such as MRO.com (<http://www.mro.com/>) and Employease (<http://www.employease.com/>)

Many sites, which are continually evolving offer a catalogue model. These include BioSpace.com (<http://www.biospace.com/>), Embion.com (<http://www.embion.com/>), Medicalbuyer.com (<http://www.medicalbuyer.com/>), Medibuy.com, and Medical SuppliesUSA (<http://www.medicalsuppliesusa.com/>)

Then there are so-called auction models such as Medpool.com (<http://www.medpool.com>, and Neoforma.com (<http://www.neoforma.com/>) which provide an e-bay type opportunity for people to bid for products online. A variation of the auction model is Promedix, (<http://www.promedix.com/>) which deals in commodities where prices tend to be volatile.

Look for these companies to offer new products and services such as specialized malls and management tools. Also look for increased consolidation which as the purchase by Chemdex of Promedix.com, and the sale of nontraditional products and services online (Medicine Online (<http://www.medicineonline.com/>) .

Also look for more players such as group purchasing organizations, healthcare vendors, to invest in business to business e-commerce. Some developments:

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- Aetna, Foundation Health Systems, Cigna, Oxford Health Plans, and Wellpoint Health Networks announced plans to form a new company called MedUnite that will compete with Healtheon/WebMD.
- Columbia/HCA and Tenet have initiated B2B exchanges, but could be limited by lack of knowledge of the Internet game, inability to move at Internet speed (where a year passes in three months), and lack of technological expertise but may benefit from having an established brand, strong management team, profitable business model, and flexibility to function online and offline.
- As an illustration of the partnership strategy, Tenet partnered with Vestro, an online exchange company, to create Broadlane.com while Columbia Healthcare funded a venture called Empower-Health.com for its online exchange.
- As an illustration of a merged clicks and bricks strategy, Premier merged its business-to-business purchasing exchange with Medibuy.com.
- As an illustration of a consortium or joint venture strategy, Johnson & Johnson, General Electric Medical Systems, Baxter International, Abbott Laboratories, and Medtronic announced creation of an online exchange for hospital supply purchases, putting pressure on Neoforma and Medibuy. Other players include AmeriSource, Cardinal Health, Fisher Scientific, McKesson HBOC, and Owens & Minor, which plan to create a wholesale market for healthcare products.
- Many health systems and specialty care companies are implementing their own eHealth initiatives. Sharp Healthcare and Mayo Clinic are starting Internet initiatives, while traditional disease management companies such as Accordant Health Services and Cor Solutions are developing Web-based capabilities.

Other trends to consider:

There will be an increased focus on minority health and minority healthcare needs, as the internalization of the Web continues

Alternative medicine will become increasingly popular and legitimate as it finds a home on respected portal, health plan, and provider sites.

Providers will become more accepting of revenue-generating opportunities such as sponsorships and affiliate marketing agreements, but still lack a clear sense of how to proceed and how to integrate commerce with content.

Hospitals, health plans, and health systems will warm up to the Web see how the Web can transform care and generate cost savings—whether through online referral authorizations or eligibility verifications or B2B e-commerce.

Providers will increasingly reach out to local communities, gathering content and resources from not-for-profit entities, partnering with employers and the media, and functioning as content contributors for local or regional sites such as Access Arizona.

RELATED TRENDS PRIOR TO APRIL 2000

Trend One: Increased competition among portal sites is causing portals to upgrade their offerings and to build new relationships. A growing number of sites are delivering on the three C's of content, commerce, and connectivity, as well as communication and care.

Lesson Being Learned: Consumers want information, transactions, and personalization/customization, and healthcare organizations increasingly have to deliver on those dimensions. Many healthcare organizations are partnering with regional sites to increase traffic to their own sites. Other sites realize that they must license content from large portal sites such as HealthCentral.com, adam.com, HealthGate, Medscape, AmericasDoctor.com, drkoop.com, etc. to achieve success.

Trend Two: The healthcare Internet is going international.

Lesson Being Learned: The Internet is an international medium, but people want a connection close to home with local information and local providers. They continue to want resources they can trust. Within the United States, marketers are coping with new and emerging ethnic markets with distinct healthcare needs and preferences. These markets often prefer sites presented in terms of a total lifestyle package of services.

Trend Three: Disease management sites are becoming increasingly popular, as people look for more interactive online strategies to manage health problems.

Lesson Being Learned: Health plans and other providers have a vested interest in learning how to help people manage their health—and their lives—online. Some of this management will still take place via traditional media such as the telephone. (See New York Times, April 9, 2000), while others will work with specially designed devices and appliances.

Trend Four: Consumers are coming to expect sites where they can track and record their health—the personal health record.

Lesson Being Learned: People want the opportunity to track their health and communicate with their provider. They may increasingly expect a personal relationship with their family physician—a place where they can send and receive e-mails, obtain lab tests, and access information targeted to their healthcare needs.

Trend Five: The healthcare Internet is becoming increasingly focused on ethics and quality of information.

Lesson Being Learned: It's important for sites to develop and uphold their own ethical code, and develop, promote, and monitor standards for quality information. Users will increasingly look for seals such as those developed by the Health on the Net Foundation, Trust-e, the Better Business Bureau, and Price Waterhouse.

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Trend Six: Healthcare executives finally have opportunities for more quality online experiences—due in part to the online Web programs of consulting firms and medical specialty focused sites being developed by associations. Vertical healthcare communities are growing. Many of these sites are beginning to deal with legal and regulatory issues.

Lesson Being Learned: Providers and healthcare want the same thing that consumers want: information, transactions, and personalization. They are looking for sites that will make their lives easier. Physicians want services that will help them better manage their practices.

Trend Seven: Business-to-business sites are proliferating—slated to be a large chunk of a \$370 billion market by 2004, according to Forrester Research.

Lesson Being Learned: Selling online is no picnic, but it's the wave of the future. Providers and consumers will increasingly do business online.

Trend Eight: Alternative medicine is gaining a growing online following.

Lesson Being Learned: Alternative medicine is here to stay. People are on the lookout for online solutions that will help them integrate traditional medicine with alternative and complementary medicine. They need help in avoiding quacks, scams, and urban legends, and want the truth about nutraceuticals.

Trend Nine: Related to alternative medicine, there are a growing number of sites using creative tools to help people get fit and stay healthy.

Lesson Being Learned: People seem to want online coaches to help them through the process of parenting, managing stress, stopping smoking and exercise. They want a personal relationship with the site or the expert(s) behind it.

Trend Ten: Sites are increasingly understanding the appeal of clicks and mortar.

Lesson Being Learned: People want an opportunity for a local, face-to-face connection. Sites will increasingly connect their programs to real-world screenings, special events, and sales opportunities.

A RUN-DOWN OF THE TRENDS

Trend One: Increased competition among portal sites is causing portals to upgrade their offerings and to build new relationships

Example: HealthCentral.com (<http://www.healthcentral.com/>), OnHealth.com (<http://www.onhealth.com/>)

HealthCentral.com, for example, now offers news sub-channels, including Business and Government, Health and Wellness, Science and Medicine, Sex and Relationships, Kids and

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Family, and Alternative Medicine. The site also features a channel devoted to HealthCentral.com's personalized 70 newsletters, allowing users to view and order all 70 newsletter offerings.

The site provides links to HealthCentralRx.com, an online pharmacy with more than 23,000 prescription and non-prescription items. There are also links to two of HealthCentral.com's network sites: Rxlist.com, which provides drug information, and the company's Canadian Web site, www.healthcentral.ca, which supports the notion that many healthcare sites are going international.

HealthCentral.com is also known for its connection with Dr. Dean Edell, original content from Joe and Theresa Graedon of the People's Pharmacy, and content from Best Doctors.

Trend Two: The healthcare Internet is going international

Examples:

WebMedicalServices.com (<http://www.webmedicalservices.com/>)

Salutia.com (<http://www.salutia.com/>)

WorldCareTech (<http://www.worldcaretech.com/>)

WebMedicalServices.com has entered China and Latin America with

<http://www.preguntealealmedico.com> (Spanish), as well as <http://www.chinawebmedical.com> which is targeted at mainland China, Hong Kong, Taiwan and Singapore.

The sites have features such as ASK THE DOCTOR (where patients' questions are answered by e-mail); SECOND OPINION; DIET PLANS WITH ONLINE PERSONAL TRAINER; LAST HOPE (where patients with terminal illnesses can find resources for advanced medical therapies); PLASTIC SURGERY ONLINE IMAGING (where consumers can see how they would look after a plastic surgery procedure). Brick and mortar approaches include referrals to medical specialists and hospitals for patients from Europe, Asia and Latin America plus a concierge service for with airlines, hotels, car rentals and translation services.

Another player is Salutia.com, which is Latin's America's first portal dedicated exclusively to healthcare. It will deliver highly localized content aimed at the Spanish and Portuguese markets.

And in Germany, sites such as DocCheck.com are working to tap into a potential market of 360,000 physicians—just 40,000 of whom are on the Web. A growing number of American companies are trying to develop a presence in Europe and other regions, with companies such as WebMD moving into Japan and the investors behind Medscape purchasing a healthcare portal in France. Many of the portal sites already have international initiatives.

Coupled with this is the growth of sites that cater to minority health issues such as

<http://www.bet.com/> and the <http://www.omhrc.gov>. OMHRC, for example, has separate

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programs dealing with HIV/AIDS, eliminating racial disparities, and Hispanic health.

Trend Three: Disease management sites are becoming increasingly popular as consumers look for sites to strategies, not just information.

Examples: PDHI, Inc. (<http://www.pdhi.com/>), LifeChart.com (<http://www.lifechart.com/>), Lifemasters.net (<http://www.lifemasters.net/>)
 The DailyApple.com (<http://www.thedailyapple.com/>)
 Chronicrx (<http://www.chronicrx.com/>)
 Promedex (<http://www.promedex.com/>)
 Health Hero Network (<http://www.hhn.com>)
 Blue Cross and Blue Shield of New Hampshire (<http://www.anthemchsns.com/>)
 Disease Management Consortium (<http://www.dismgmt.com/>)

MyBP, for example, is what is being billed as the “first interactive health channel for people with high blood pressure.” The site provides e-mail communication with a team of nurses and medical specialists, a personal diary for tracking blood pressure, diet, exercise, lifestyle changes, and medication usage, graphs that use information from the diary to monitor progress, a ten-year coronary heart disease risk assessment with comparisons, and other educational material, resources, features, tips and reviews.

Another player in this space is LifeChart.com, which offers an interactive asthma monitoring system and an electronic asthma monitor. Users blow into the monitor, which automatically records, stores, and displays the data in red, yellow and green-zoned charts. Results are uploaded to LifeChart.com over a phone line, where LifeChart.com organizes the information into electronic health reports.

Even pharmaceutical companies are getting into the act with PMS management programs and a site called The Daily Apple, which offers interactive software that tracks symptoms, offers results of studies on how women have managed PMS with calcium supplements, and features advice from experts. Users go through a question-and answer section, take the calcium supplements, and then track their response through a questionnaire.

Along with that are sites such as <http://www.ahrq.gov/consumer/diaginfo.htm> that help people access information about their diseases. Now You Have a Diagnosis: What's Next? encourages patients to work with their doctors in developing a treatment plan, explains the four main types of research studies, how to find reliable health-related information, how to use that information in making a decision, and how to discuss treatment choices with a physician.

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Trend Four: Consumers are coming to expect sites where they can track their personal health—and the health of their families through a personal health record.

Example: MyKidsDoctor.com (<http://www.mykidsdoctor.com>)

PassportOneSource (<http://www.passportonesource.com/>)

Medicalogic (<http://www.Medicalogic.com/>)

Health Magic (<http://www.healthmagic.com/>)

PersonalMD <http://www.personalMD>

Medivation.com (<http://www.medivation.com/>)

GotoMyDoc (<http://www.gotomydoc.com/>)

The Agency for Health Research and Quality (<http://www.ahrq.gov/>)

On PersonalMD.com consumers can enter include drug allergies, personal and family medical history, and other facts. Following registration on the site, consumers receive a free PersonalMD emergency card to carry with them. If a member visits an emergency room (ER), ER personnel can retrieve the information via the Internet or fax.

Developed by HealthMagic, Inc., a Web-based technology company, HealthCompass 3.0 is a tool that allows consumers to monitor health records for themselves and family members online. The record includes

patient health histories, healthcare contacts, allergies, immunizations, and details of previous physician visits.

A username and password option allows consumers to examine their health records from any computer terminal with Internet access. Supported by digital encryption and security technology that allows each record to remain secure, HealthCompass 3.0 offers tracking services such as laboratory tests, risk assessments, and pre-visit symptom interviews that identify symptoms and issues before a doctor's visit. Users can share or distribute HealthCompass records to family members or friends, or to health providers who can use the information during office visits.

Trend Five: The healthcare Internet has become increasingly focused on ethics and quality of information.

Examples: Internet Healthcare Coalition (<http://www.ihc.net/>) Now

<http://www.ihealthcoalition.org/>

Science Panel on Interactive Communication and Health (<http://www.scipich.org/>)

HI-ETHICS (monitored by <http://www.healthwise.org/>)

Health On the Net (<http://www.hon.ch/>)

Food and Drug Administration (<http://www.fda.com/>)

DISCERN <http://www.discern.org.uk>

HealthGrades (<http://www.healthgrades.com/>)

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American Board of Medical Specialties (<http://www.certifieddoctor.org/>)
 Gomez (<http://www.gomez.com/>)
 Health Information Technology Institute's Health Information Quality Assessment Tool
<http://www.hitiweb.mitretek.org/iq/default.asp>
 The Quality Information Checklist
<http://www.quick.org.uk>
 Powerrankings by Forrester
<http://powerrankings.forrester.com/>

Mediconsult.com announced that it would donate \$25,000 to the Internet Healthcare Coalition to support its e-health initiative which includes a summit meeting in Washington, D.C.

Trend Six: Healthcare executives now have opportunities for more quality online experiences—due in part to the online programs of consulting firms and specialty focused sites being developed by associations.

Examples:

Passport Health (<http://www.passporthealth.com/>)
 Passport One Source (<http://www.passportonesource.com/>)
 MedPearl (<http://www.medpearl.com/>)
 HealthLeaders.com (<http://www.healthleaders.com>)
 FamilyMed.com (<http://www.familymed.com/>)
 Knowledge Space (<http://www.knowledgespace.com/healthcare/>)
 Health Information Network (<http://www.hin.com/>)
 Managed Care Online (<http://www.mcol.com/>)
 OPUS Communications (<http://www.opuscomm.com/>) VerticalNet.com
 (<http://www.verticalnet.com/>) MedicalLogic (<http://www.medicallogic/>)
 Wisconsin Health Information Network (<http://www.whin.net/>)

One example is FamilyMed.com, an online resource devoted exclusively to family practice medicine. Among its offerings are multimedia tools for sharpening diagnostic skills, and reference and resource materials from the American Board of Family Practice (ABFP). It also features virtual patient encounters that allow physicians to diagnose and recommend a course of treatment. Each case outlines a patient visit, complete with history, review of systems, physical exam, studies that include graphics such as films and EKG strips, and lab results. The site delivers answers and supporting information. The FamilyMed.com reference center features the ABFP's 19 reference guides which have been enhanced with links to references, flowcharts, and clinical narrative. Also presented are 2,000 questions from past in-training exams along with answers and references, free web sites for ABFP-certified physicians, and links to 20 full-text articles.

The KnowledgeSpace Healthcare Community

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(<http://www.knowledgespace.com/healthcare/>) offers a community for healthcare leaders with resources, best practices, diagnostic tools, customized news, studies, and trend and statistical analyses. Targeted to hospital, health plan, pharmaceutical, research, and supplier professionals, KnowledgeSpace Healthcare Community gives users access to Business Radar and Daily Highlights, which feature news from 400 newspapers, magazines, journals, and news wires, including 70 healthcare journals. Global Best Practices for KnowledgeSpace offers a collection of case studies and self-assessment tools, while Trends & Statistics presents market profiles, trend and strategic analyses, and presentations. Meanwhile, Knowledge Bundles and Executive Briefs serve up content and tools on hot-button issues such as HIPAA, information technology, e-health and commerce, the Balanced Budget Act, consumer issues, and prescription drug costs.

Most recently, MedicaLogic (<http://www.medicallogic.com/>), an online medical records company allowed physicians to set up a query and five seconds to run a report on patients to find those using Rezulin. The same was true of a company called MedPearl (<http://www.medpearl.com/>).

Trend Seven: Business to business sites are proliferating

Examples:

Medpool.com (<http://www.medpool.com/>)

Neoforma.com (<http://www.neoforma.com/>)

Medibuy (<http://www.medibuy.com/>)

Medical Buyer (<http://www.medicalbuyer.com/>)

MedicalSupplies USA (<http://www.medicalsuppliesusa.com/>)

MedMarket.com (<http://www.medmarket.com/>), which is a sister site to MedMarketAuction.com (<http://www.MedMarketAuction.com>) and DiscountMedBooks.com (<http://www.DiscountMedBooks.com>) offers discounted medical equipment and supplies, auctions, daily updates, a “virtual industrial park” for the medical device, diagnostic, pharmaceutical, and biotechnology product manufacturing industry, and even alternative health products.

Trend Eight: Alternative medicine is gaining a growing following.

Examples:

Dr.Weil (<http://www.drweil.com/>)

CancerOption.com (<http://www.canceroption.com/>)

MotherNature.com (<http://www.mothenature.com/>)

VitaCost (<http://www.vitacost.com/>)

OneMedicine (<http://www.onemedicine.com/>)

Cancerfacts.com (<http://www.cancerfacts.com/>)

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The Natural Pharmacist (<http://www.tnp.com/>).
 Academy for Anti-Aging Medicine <http://www.worldnet.net>

WholeHealthMD.com (<http://www.wholehealthmd.com/>) was founded as an Internet venture between American WholeHealth, a provider of integrative medicine, Rebus Inc., a consumer health and medical publisher, and Whole Foods Market Inc.. The site features self-care strategies for dealing with more than 100 common ailments., with Healing Paths based on protocols that were reviewed and tested by integrative medicine practitioners. WholeHealthMD.com also offers e-commerce through Whole Foods Market, as well as a library of content related to integrative medicine therapies and studies.

Interestingly, there is also a backlash against alternative medicine—on the one side with sites such as <http://www.quackwatch.com/> and <http://www.ncahf.org>, and on the other from sites such as The American Academy of Anti-Aging Medicine, which is actually mounting a defense of alternative medicine treatment through its site <http://www.worldhealth.net> where it offers Attack on Internet Health Freedom, a review of pending legislation to appropriate 10 million dollars to the FDA to police health information on the Internet. Users can also use World Health Network's "Click to Congress" to cast their vote.

Other sites such as the Natural Pharmacist are adding features such as the Herbal Drug Interactions Database to their sites so professionals can understand the interactions between prescription drugs and supplements.

Trend Nine: Related to alternative medicine, there are a growing number of sites using creative tools to help people get fit and stay healthy.

Examples

Healthy People 2010 (<http://www.health.gov/healthypeople>)
 Asimba (<http://www.asimba.com/>)
 Cyberdiet (<http://www.cyberdiet.com/>)
 DietWatch (<http://www.dietwatch.com/>)
 Ediets (<http://www.ediets.com/>)
 Shapeup.org (<http://www.shapeup.org/>)
 RealAge.com (<http://www.realage.com/>)

Through ShapeUp.org, C. Everett Koop, MD has launched a new weight loss program called Shape Up and Drop 10. The site has identified seven diseases -- hypertension, cardiovascular disease, dyslipidemia, Type 2 diabetes, sleep apnea, osteoarthritis, and infertility -- as co-morbid conditions for obesity where the diseases either worsen as the degree of obesity increases or improve as the obesity is treated. Using the program, a user goes through a series of assessments, using online technology to design an individualized weight management plan. Combining a

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personalized diet plan and fitness program, the user can set personal weight management goals, such as weight loss or prevention of weight gain, which is known as the "Shape Up" option. Users can also choose each day's meals and snacks from four types of food plans--basic, non-dairy, lacto-ovo, or vegan—and choose from among five different physical activity plans. Finally, users identify weekly weight management challenges that need to be addressed.

RealAge.com allows users to calculate their "Real Age"—the age their body is based on how well they have maintained it over time. Then, through a process called Age Reduction Planning, RealAge.com helps users develop a personalized health plan, which suggests what steps that they can take to become younger.

RealAge.com incorporates a good portion of what scientists know about aging, including information about nutrition, exercise, environment, stress, genetics, and family history. All of this information can be used to calculate a person's biological or "real" age.

RealAge.com has also introduced condition specific interactive modules to address health topics such as weight loss, breast cancer screening, and arthritis. Based on the interactive technology on RealAge.com, these modules make recommendations based on the individual user's profile.

With a community that supposedly passed the one million member mark according to the site's own estimates as of November 1999, <http://www.ediets.com/> site starts its relationship with a user by making a request to complete a personal profile questionnaire.

The profile consists of more than 30 questions covering issues such as health, attitude, weight loss goals, exercise regimens, dietary preferences, allergies, and dietary restrictions. Reading the answers to questions as, "Are you on a restricted low sugar diet?" and, "How many times per week do you eat meals away from home?" allows the site's dietitians to create a free, personalized profile.

Free membership on the site includes a bi-weekly newsletter, news@ediets.com, which offers information on health, nutrition, and fitness. Each newsletter contains health and diet tips, news articles, recipes, and book reviews.

For a fee of \$70, however, members can receive a three-month weight loss program designed to fit their nutritional needs and goals. The program includes personalized meal plans, shopping lists, and access to chat rooms and online support groups.

Trend Ten: Sites are increasingly understanding the appeal of clicks and mortar.

HealthScreenAmerica (<http://www.healthscreenamerica.com/>)