



***PATIENT-PROVIDER eHEALTH
PORTALS FOR DISEASE
MANAGEMENT AND OTHER
APPLICATIONS***

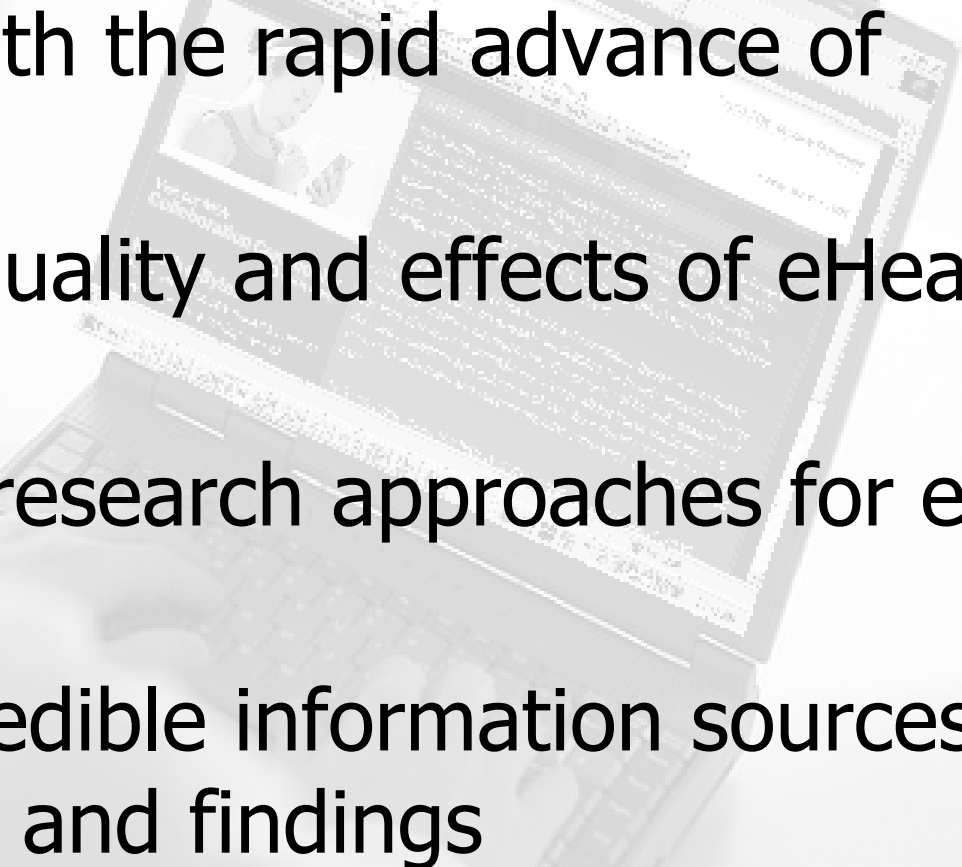
David K. Ahern, PhD

National Program Director
Health e-Technologies Initiative
Brigham and Women's Hospital

DEFINING eHEALTH

- Use of emerging *interactive* technologies to enable health improvement and health care services
- Technologies include the Internet, interactive TV, interactive voice response systems, kiosks, wireless networks, PDAs, CD-ROMs, DVD-ROMs

eHEALTH CHALLENGES AND OPPORTUNITIES

- Keeping up with the rapid advance of technology
 - Determining quality and effects of eHealth applications
 - Investigating research approaches for eHealth programs
 - Developing credible information sources on research tools and findings
- 

eHEALTH: THE POTENTIAL

A hand is holding a tablet computer. The screen of the tablet displays a healthcare application interface. The interface includes a search bar at the top, a grid of icons for various services, and a list of text-based items below. The background of the slide is a light gray gradient with a faint, larger image of the same hand holding the tablet.

- Provide evidence-based, interactive tools to empower consumer self-management
- Enhance practice/provider efficiency and work flow
- Enhance patient-provider communication

eHEALTH: THE EVIDENCE



Emerging programs for health behavior change:

- Smoking cessation
- Physical activity
- Nutrition
- Weight loss

Oenema, J., Brug, K. & Lechner, L. Web-based tailored nutrition education: results of a randomized Controlled trial. *Health Education Research*, 16(6): 647-660, 2001.

Tate, D., Wing, R.R., & Winett, R. Using internet technology to deliver a behavioral weight-loss program. *JAMA*, 285(9), 1172-1177 March 7, 2001.

Pinto, B.M., et al. Effects of a Computer-Based, Telephone-Counseling System on Physical Activity. *American Journal of Preventative Medicine* 23(2), 2002.

eHEALTH: THE EVIDENCE



Emerging evidence-based programs for chronic illness care and disease management:

- Back pain
- Arthritis
- Diabetes

Lorig, K.R., Laurent, D.D., et. al. Can a back pain e-mail discussion group improve health status and lower health care costs: A randomized study. *Arch Intern Med.* Apr 8;162(7): 792-6., 2002.

Meigs, James, B., Cagliero, E., et. al. A controlled trial of web-based diabetes disease management. The MGH Diabetes Primary Care Improvement Project. *Diabetes Care,* 26(3):750, 2003.

GAPS IN CURRENT eHEALTH RESEARCH

- Lack of research findings
- Limited grant funding opportunities
- Limited resources for development



NATIONAL PROGRAM OFFICE

- Five-year, \$10.3 million national program funded by a grant from The Robert Wood Johnson Foundation®
- Housed within the Department of Psychiatry at Brigham and Women's Hospital, Boston, Massachusetts

OUR VISION

- Foster systematic research on eHealth applications for health behavior change and chronic disease management
- Advance discovery of scientific knowledge about these applications to improve processes and outcomes of care for culturally diverse groups of patients/consumers
- Support provider adherence to evidence-based care

CLEARINGHOUSE FOR DATA, TOOLS, RESULTS

- www.hetinitiative.org
- Collaboration Community fosters linkages between and among researchers and users of eHealth information
- Literature Library, Bulletin Board, industry events, opportunities and news
- Users are encouraged to provide content

2002 CALL FOR PROPOSALS (CFP) OVERVIEW

Sought research proposals that addressed:

- Challenges related to the methodology, design, evaluation and effects of eHealth applications
- The ability to support and maintain health behavior change
- Enhanced patient self-management of chronic disease

2002 CFP PORTFOLIO

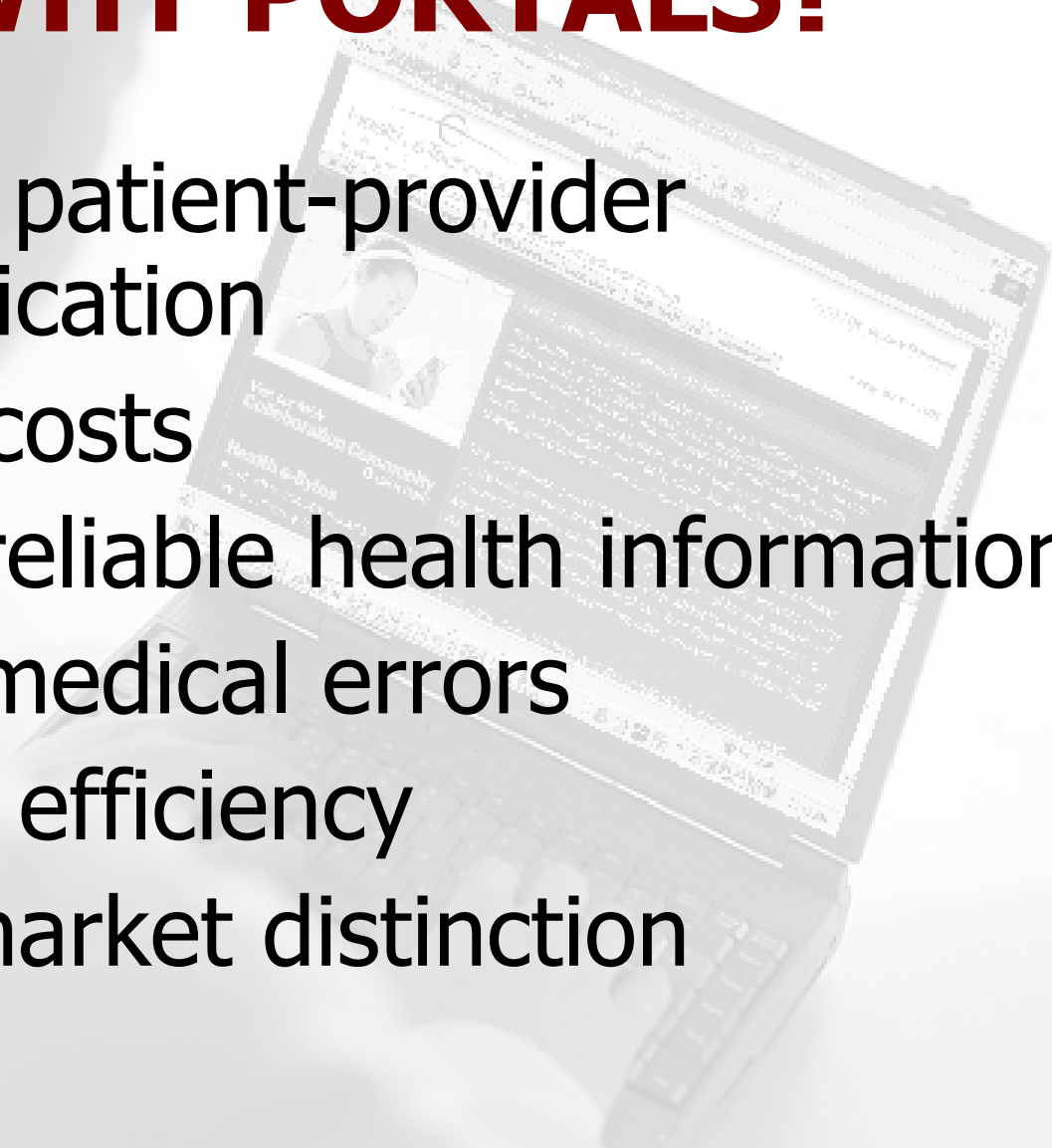
- 18 grants totaling \$4.8 million were awarded to organizations studying diverse topics and populations:
 - 10 Methodology and Design
(1 year; up to \$100,000)
 - 8 Outcome Evaluation
(up to 3 years; up to \$500,000)
- These projects began September 1, 2003

EMERGING 2003 RESEARCH

- *Validation of quality criteria for health information on the World Wide Web*
University of Texas Health Science Center at Houston
- *Two Internet Studies: Reliability of Outcome Data Collected via Internet; Recruiting for Internet Studies from Rural America*
Stanford University
- *A Randomized Controlled Trial of Diabetes Disease Management Over the Internet*
University of Washington

WHY PORTALS?

- Improve patient-provider communication
- Contain costs
- Provide reliable health information
- Reduce medical errors
- Enhance efficiency
- Obtain market distinction



EXAMPLE

Tour of Patient Gateway - Prescription Renewal - Microsoft Internet Explorer provided by Partners HealthCare System

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History Print Mail News RSS User

Address <http://www.patientgateway.org/ptgw/wlogon.htm> Go

PATIENT GATEWAY

Home Feedback Site map Logout Policies

Mail Requests ~ Prescription Health Record Health Library Practice My Profile Help

Demonstration Patient MRN: 6005

▼ Instructions to the Practice

*** Where should the prescription go?**

Phone or fax into Pharmacy Mail it to me
 Mail it to Pharmacy Hold it for pick-up

Select a pharmacy:

From My Profile
 Other Pharmacy

CVS Pharmacy #1866

Name:

Address:

City:

State: MA

Zip:

Phone:

Address and Phone Number
Insurance and Providers
Mail Settings
Contact Info
Pharmacy Settings
Appointment Settings
Change Password

4

2004 CFP OVERVIEW

- Existence of a robust, currently operating, secure patient-provider portal with a critical mass of key functions and users
- Key functions of interest:
 - Bi-Directional Clinical Communication
 - Administrative Transaction Capability
 - Patient Access to Electronic Records
 - Health Behavior Change and Chronic Disease Management Programs

2004 CFP OVERVIEW

- Research is focused on patient outcomes
- Potential for the research to elucidate the factors about patient-provider communication that can serve to promote and integrate health behavior change and chronic disease management into care processes

CONTACT US

Health e-Technologies Initiative

617-525-6167

hetinitiative@partners.org

www.hetinitiative.org