
Science and the Advancement of eHealth

A Call to Action

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Consumers, patients, and providers are increasingly using eHealth applications, particularly the Internet, to seek health information for themselves or family and friends, to communicate with others who have a similar disease or illness, to receive prevention messages and health promotion advice, and to communicate with healthcare providers. Current trends indicate that Internet users seeking health information and healthcare services will more than double from 2000 to 2005, reaching 88.5 million people.¹ CD-ROM and DVD-ROM technologies support delivery of multimedia programs for health promotion that are interactive, entertaining, and graphically rich.

However, issues have been raised about the quality and effectiveness of technology-based programs.^{2,3} Although preliminary work has been done to promote the development of standards for assessing quality of such programs,⁴ there is no consensus about evaluating effectiveness. A recent review of Internet-based programs for health behavior change indicated that few investigations of effectiveness have been done.⁵ There is a strong need to advocate for more systematic evaluation of effectiveness to determine the value of technology-based programs for health promotion and disease management.⁶

Baranowski et al.⁷ is a good example of what can be learned about program effectiveness by applying scientifically rigorous methodology. The authors address the critically important topic of risk reduction for cancer and heart disease via increasing fruit, juice, and vegetable (FJV) consumption by young children who received a psychoeducational multimedia game. The results show that FJV consumption among the children who received the multimedia game increased significantly by one serving a day compared to the children not receiving the program. These findings are all the more credible and generalizable given the strong methodology employed by the authors, including a large sample of schools and students, the mixed ethnic and socioeconomic status composition of the sample, using

school as the unit of assignment and analysis, random assignment of school to condition, and a multistage data analytic approach.

To foster more systematic research on eHealth applications for health behavior change and chronic disease management of the sort illustrated by Baranowski et al.⁷, The Robert Wood Johnson Foundation (RWJF) has approved a \$10.3 million fund to support 5 years of research to evaluate the effectiveness of eHealth applications for health behavior change and chronic disease management. The program is entitled the Health e-Technologies Initiative, and the National Program Office is housed at Brigham and Women's Hospital in Boston. DKA is the national program director, JMP is the Deputy Director, and REM is the RWJF senior program officer.

The goal of the Health e-Technologies Initiative is twofold: (1) to expand the body of knowledge about the efficacy, costs, cost-effectiveness, and overall quality of eHealth applications that are currently in use for health behavior change and chronic disease management; and (2) to expand the body of knowledge about how to evaluate, compare, and improve eHealth applications. This will be accomplished by supporting systematic and rigorous research that evaluates existing eHealth applications, investigations that result in new methods and measures for evaluating eHealth programs, and studies that further our understanding of how to assess and compare the costs and cost-effectiveness of eHealth programs.

Initiative staff works with key stakeholders—including our National Advisory Committee, a diverse group of experts in health care from across the country, and RWJF staff—to create and implement a scientifically based research agenda. A call for proposals (CFP) was posted on our website in November 2002. Through our Resource and Communications Center, the Initiative will promote results of supported projects to stakeholders in the target audiences, RWJF grantees, the media, policymakers, researchers, developers of eHealth applications, businesses, employers, and the general public.

A total of \$7.25 million in funds will be awarded under this program. Approximately two thirds of the overall funds will be awarded through a 2002 CFP in two categories: (1) 6- to 12-month methodology and design grants (up to \$100,000); and (2) ≤ 3 -year out-

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come evaluation grants (up to \$600,000). The remaining funds will be awarded via a CFP in 2003.

Updated information about Initiative activities, including our CFP, is posted on our website www.hetinitiative.org.

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