

# eHealth for Behavior Change

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# Platforms, Tools, and Programs

- eHealth *platforms*, e.g., interactive web sites and web portals
- eHealth decision-support *tools*, e.g., specific, *interactive* applications addressing a particular target behavior or condition
- eHealth *programs*, which use eHealth platforms and tools to enable implementation of a coordinated set of management and evaluation services.

# Current eHealth Platforms and Tools

- Health Risk Assessments
- E-mail Communications
- Interactive applications for behavior change and disease management
- Personal Health Records (PHRs)

# Health Risk Assessments

- Survey instruments designed to assess the health status including demographics, health behaviors, risks, and existing conditions
- Research evidence demonstrates the value of determining health status as a first step in identifying patterns of risk factors and prevalence of chronic conditions

# Health Risk Assessments

- Information gained from an HRA can be used to target intervention programs
- Impact determined with a post-assessment
- Online versions are preferred for ease of administration, reduced respondent burden, reliability of responses, and immediacy of results

# E-mail Communications

- E-mail is becoming a channel for communication between providers and patients
- Evidence shows that patients want to e-mail their providers about their health and conditions
- Providers are less sanguine about e-mail with concerns about being overwhelmed with questions and increased liability for uncompensated care.

# E-mail Communications

- E-mail has become ubiquitous and is used as a major channel of communication
- E-mail can serve as a platform for providing health information via tailored health messages as part of an overall health improvement program

# Interactive Tools for Behavior Change and Disease Management

- Interactive decision-support tools to assist in changing health behaviors or managing chronic diseases
- Decision-support tools can be delivered via multiple media through the Internet or stand-alone devices, and may include
  - biometric monitoring,
  - simple questions about health risks and status,
  - remote transmission of this information to providers,
  - reminders and prompts such as to take prescription medication

Condition/Behavior	eHealth Platform/Tool	Example
Obesity	Web site	Interactive web site that provides online counseling, discussion board, caloric calculators, sample weekly menus, etc
Sedentary Lifestyle	E-mail	Weekly e-mail tip sheets on practical ways to increase physical activity, sample exercises, and health facts about the benefits of physical activity
Nutrition	Computer-tailored Magazine	Tailoring program to assess nutritional areas that need improvement and provide individual feedback on healthy eating tips, etc focused on area(s) employee needs the most
Chronic Disease Management	Secure Online Portal	Allow for communication between the employee and his/her clinic to request refills, follow-up appointments, etc
Enhanced Access to and Improved use of Medications	Interactive Web-based Program	Access to educational information about appropriate use of meds as well as incentives for cost-effective med choices, provides online medication records, platform to confidentially ask med-related questions
Undetected Health Risks/Problems	Online Health Risk Assessment (HRA)	Allows for more frequent monitoring of employee health/behavior. Can be easily integrated into other aspects of a health promotion program

# Interactive Tools for Behavior Change and Disease Management

- Current studies on these and other interactive eHealth tools note encouraging trends in behavior change or support the deployment of web-based tailored interventions
- Limitations include
  - generalizability to diverse populations or health/disease states,
  - maintaining participant enrollment in programs,
  - sustaining changes over time, and
  - integrating these systems into office workflow and showing return on investment.

# Personal Health Records (PHRs)

- There is growing interest in the potential value of the personal health record (PHR) as part of a strategy to encourage patient engagement in their own healthcare and to empower personal responsibility for health
- Unlike electronic medical records (EMRs), individuals control the information and access to data within their PHR.

# What PHRs are today

- Poorly defined
- Narrow range of uses (merely repositories of information)
- Proprietary in nature
- Drawbacks to both institutionally-based as well as free-standing

# What could PHRs become?

- Powerful systems of interoperable tools that help individuals improve their health and manage their care
- Tools to understand and use accessible health information, in order to take charge of their health and healthcare
- PHRs can transform the way patients, health care providers and caregivers access and respond to medical information

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# Personal Health Records (PHRs)

- Conceptually, PHRs:
  - are not linked to a single provider or health plan,
  - span an individual's lifetime,
  - contain data entered that might not normally be a part of a medical record (e.g., non-prescription medications and supplements, alternative and complementary modalities of care)
- However, there are some concerns about patients' willingness to use a PHR if offered by their employer or health plan
- Trust and concern about confidentiality and security appear to be the major factors which contribute to this reluctance.

# Personal Health Records (PHRs)

- Recently, a coalition of large employers, including Wal-Mart and Pitney Bowes, has formed to develop and implement a PHR for their employees
- Also, Microsoft just announced the availability of a secure PHR called HealthVault that is available free to the public with partnerships with healthcare providers and institutions to enable interoperability of information flow between the PHR and EMR.