Older U.S. Adults and Technology:
A Potential for Electronic Health Records or Personal Health Records?

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ABSTRACT
Increasingly, older adults are accessing new technological applications available to them. To develop successful initiatives for older adults it is very important to have an understanding of the characteristics of this population. This article explores the fundamental areas which drive the development of products, programs or services for older adults and includes an exploration of the readiness for electronic health records and personal health records. Factors in marketing and communicating with seniors are presented along with specific points which are basic in marketing to any potential consumer. For health care organizations providing services to older adults to reach this population effectively, the organizations must understand the core values, characteristics and strategies which build consumer confidence and ultimately reach the consumer.
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Understanding Older Adults in the U.S.

Understanding the characteristics of older adults or seniors is important to any initiative intending to target this population. Those interested in targeting products, programs or services for this population should have an understanding of the characteristics, needs, motivations, and desires of various subsets of this population group. Allbusiness (2009) describes the demographic characterization of these subsets in terms of age, education, income, occupation, household size, and region of the country. Further specificity of examining choices and interests of older adults will take into account psychographics of these subsets including factors such as vacation choices, brand choice, preferences in communication, lifestyle, and other factors. These subsets generally have a common historical frame of reference, but have very different life experiences from parental, cultural, geographic influences, and language differences.

Walker (2005) indicated he considered individuals to be seniors and entering this market demographic at about age 60. The growth of the senior market with the onset of the entry of the Generation (Boomers) is projected to present a huge business potential.

One factor reported by both Walker (2005) and Senior Journal (2008) are that older adults or seniors generally have more money than other segments of society. The Boomer generation will be entering retirement having earned more money than those before them but with greater debts that their predecessors. Planning to introduce new products, programs or services must be driven by an understanding of the characteristics of those persons for whom any new initiative is intended.

Moving Toward Electronic Health Records

Blue Cross and Blue Shield (2008) announced in November 2008 free on-line health records for Medicare Advantage members. This resource, available since January 2009, provides confidential, personalized attention to each Medicare Advantage beneficiary, allowing each to manage and monitor their own care. The confidential information is accessible through a secure member website and allows seniors to determine which tools and reminders are helpful to them. The Personal Health Manager (PHM) section of the Blue Cross and Blue Shield website is populated with data from "medical and pharmacy claims, member self reporting, and input from health care professionals who may access and supply data with the member's permission."

According to Forrester Research (2008) a survey of 5,242 U.S. consumers revealed that 30% track their personal health information. Fifteen percent responded that they did not know whether they kept health information. Whereas the majority of those affirmatively responding (76%) used a paper based system, 11% used an Internet-based system or program.

E-Health Insiders Primary Care (2008) reported divided opinions regarding whether to allow pharmacists access to electronic health records. With responses from 498 of 2,500 members surveyed, 50% were willing for pharmacists to have access, while

25% were strongly opposed. Some of the primary reasons for concerns cited were concerns of confidentiality and privacy due to the openness of communication in pharmacies and the number of people working and communicating openly in pharmacies. It was "recommended that pharmacies should establish a confidentiality charter covering consultation rooms, over the counter services and inter-staff discussion of patients."

Whereas Personal Health Records (PHR) are defined as "health information managed by the individual" Electronic Health Records (EHR) or Electronic Medical Records (EMR) are defined as "the clinician's record of patient encounter-related information" (Ball, 2007). PHR is an enabling technology, enabling consumers to become actively engaged in their own health care. The value of PHR may lie in shared information and shared decision-making, as the components support a continuity of care (Ball, 2007). PHRs are owned, managed and controlled by the patient and puts the patient back at the center of the healthcare process, where physicians can view them directly. Patients who maintain paper based records can bring these into any physicians' office. In the creation of an electronic system a key feature is the need for interoperability nationwide and perhaps internationally, so that a patient can take their file anywhere. The integration of EHR and PHR is an implicit vision in Health Information Technology (HIT) of an environment that empowers individuals, consumers and caregivers to take an active role in their healthcare. According to a survey by Peter D. Hart Research Associates (2004), whereas 90% of American consumers responded that they wanted to be an active and involved partner with their physician, only 9% wanted their physician to manage their care and make decisions for them.

Senior Readiness for Technology

More and more seniors are using the internet. According to The Online Family (2008), seniors are finding that health care, finances and emailing loved ones is proving to be a safe and convenient way for seniors to save time and keep active. The Senior Journal (2008) August 2008 poll of 100 centenarians revealed that some of the oldest Americans are using the latest technologies including cell phones, email, internet surfing, Wikipedia, and online dating. The Senior Journal (2008) further reports that according to a Harris Poll, Baby Boomers (age 50-64) make up 24% of the U.S. population and make up 23% of the total U.S. online audience. Seniors (persons ≥65 years of age) are reported by this same poll as making up 16% of the population with an estimated 10% online users. Those who tend to lag in use of computer and the internet are those never went to college and people with household incomes less that $25,000 annually. Excerpts from this Harris poll indicate that most of these respondents (75%) use a computer at home, but others, may access at work or in other community locations.

A 2003 survey of 1000 visitors to www.thirdage.com showed that 24% of the visitors aged 50 and above used the internet between 11-20 hours per week. At www.thirdage.com a PEW survey indicated the percentage of older adults going online increased by 47% between 2000 and 2004. This study reported that 22% of Americans 65 or older reported having access to the Internet. *The New York Times* (2004) profiled some of the websites most frequently used by older adults. Some of the most common uses for the Internet by seniors reported in *Suddenly Senior* (2004) included:

- 66% of wired seniors looked for health information, including Medicare and Medicaid;
- 66% conducted product research;
- 47% bought something;
- 41% made travel arrangements;
- 60% visited government web-sites;
- 26% looked for religious or spiritual information; and
- 20% banking on the Internet.

Seniors tend to go online more and stay on the internet longer than those under 50 (*The New York Times*, 2004). In a study by the Electronic Health Record Vendors Association and the Healthcare Information and Management Systems Society (2008), two-thirds of American consumers expressed concerns about privacy of health information. Consumers were concerned that information provided to insurers on claims might be seen by an employer and used to limit job opportunities. Racial and ethnic minority groups expressed greater concern (61%) about employer misuse compared to (46%) of those not in the minority group category. Also supporting the need for privacy and security, the HIMSS Electronic Health Record Vendors Association cites two general categories of concern:

- Inappropriate release of information from providers by authorized users in violation of organizational policy or non-authorized users who access an information system with malicious intent; and
- A normal flow of information through the health care system between providers, payers, and secondary users with consent or implied consent.

Westin (2008) surveyed 1,580 American adults concerning their opinions of the potentially uses and privacy considerations of PHRs[i] revealing the following findings:

- High perception of value…79% believed using an on-line PHR would provide major benefits;
- High interest…46.5% would be interested;
- Privacy concerns…56.8% expressed concern about privacy and security of records;
- Practices matter…between 87-92% felt the provision of specific privacy, record-access and user remedies would be essential for protection;
- Utilization…only 2.7% had an electronic PHR today. 40% had some paper records;
- Variations by sponsor…Most did not have a health provider who was using PHR or who had PHR available as an option; and
- Variety of enforcement…75% considered each of the following to be useful: market forces, federal health privacy law, Federal Trade Commission, state attorney general and independent organizational-compliance audits.

The following points were seen as essential privacy information practices under the fourth bullet point above:
- Notify patient if information falls into unauthorized hands;
- Patient able to review who has had access to information;
- Patient would have clear process to request corrections or dispute the way information is handled;
- Individuals would NOT be denied care or penalized financially based on whether they decide to provide certain medical information to an internet service;
- Allowing patient to control the adding of sensitive medical condition or treatment for this condition to electronic record; and
- Patients could make more informed choices about how information is collected and used.

In a Policy Notice to Consumers from Connecting for Health (2008) a framework proposing a set of practices to encourage appropriate handling of PHR information is presented. This framework design includes 18 distinct sections delineating The Common Framework for Networked Personal Health Information. The policy section of this document emphasizes the core principles for a networked environment in the need for: (1) openness and transparency; (2) purpose specifications; (3) collection limitation and data minimization; and (4) use limitation.

In preparation for implementing any new technological applications for seniors several factors will influence success of the new venture. According to Pariza-Wacek (2009), the following points are basic to marketing to any potential consumer:

- Define your target population. Be specific and not global. Make sure the materials developed speak directly to this customer.
- Make sure to include BENEFITS of the service or product, not FEATURES. People buy benefits. A benefit is what the consumer would accomplish or the solution for using the product. (i.e., Weight loss, saving money, time, convenience). Explain, why should someone use this?
- Have an attention grabbing headline. Decisions are made based upon your headline. Your headline should speak to your potential customer, contain a benefit, so compelling your target market is compelled to read further. (i.e., Ever forget something from your medical record? or Ever wish you had your medical record? Have your complete medical record in your wallet or purse before your next appointment) (i.e., Want to be reminded when you are due for health screening? Enroll now for free health reminders.)
- Include a call to action. What is the next step to participate? (i.e., Call this number now!!)
- Use P.S. or captions. Post scripts are the second most read item in marketing materials. Captions are third most read and are the writing under photos, diagrams or illustrations.

The person designing a marketing strategy to reach seniors about developments and technology which may benefit them must carefully consider the values and motivators of this population demographic. According to Zweig (2010) these values and motivators should include messages incorporating:

- Autonomy and self-sufficiency (independence/participation);
- Social Connectedness (relationships/friendships);

- Altruism (opportunity to share, wisdom, and ability to do for others);
- Personal Growth (gain knowledge); and
- Revitalization (need to rejuvenate).

It has also been shown that presenting a message that is more suggestive than descriptive allows for more subjective interpretation. This approach may be more effective with this population. Of 128 older participants studied by Wright (2005), 96 selected voice presentation more often in procedural tasks. Because not everyone learns in the same way, a variety of presentation methods will be more likely to reach various segments of population group.

Walker (2005) indicated segmentation of this market by age, gender, income or geographic location will be important in targeting any messages. Segmentation should also be considered for qualities such as lifestyle, personality, and social standing and by product/service benefits. The product or service benefits may be perceived differently by various types of consumers according to income, lifestyle, gender, and other demographic and psychographic characteristics.

In any messages to seniors consideration must be given to those segments of the population where decisions may be made in consultation with or by other family members, such as children or grandchildren. Some seniors may consult with neighbors or friends, other caregivers, or professionals for advice in participation or purchasing of services or products.

Walker (2005) provides some tips in reaching out to seniors:

- Catch them early…reach out to younger seniors or before and engage them for the long haul;
- Study and analyze your market…customer surveys, focus groups, consumer panels to gather information;
- Know your competition;
- Design several targeted promotional approaches;
- Build meaningful lasting relationships by using principles of good customer service; and
- Develop strategic partnerships in developing comprehensive marketing strategies.

Use of resources and organizations that provide trusted services to older adults can be beneficial in gaining trust and acceptance. Strategic partnerships with community organizations who are able to provide printed materials, word of mouth marketing

and opportunities to offer free trials, demonstrations of how the service or product works will foster a relationship of trust and promote a gradual introduction of the new service/product into the desired target population. Some of these organizations may include banks, senior centers, hospital, physicians, community associations or fraternal groups. The American Association of Retired Persons (http://www.aarp.org/) is an influential organization that may be looked to for ideas in marketing and education of older adults.

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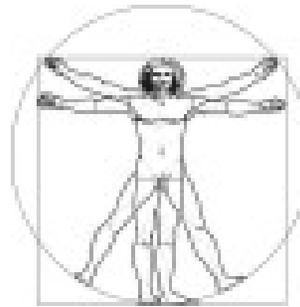
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