

State of the Science: Health, Wellness and Disability

PRESENTATION BRIEF

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Title of Presentation: Clinic Process Changes to Improve Preventive Services for Adults with Mobility Impairments

I. Introduction

Abundant research clearly demonstrates that receiving good quality, evidence-based clinical preventive and screening services is integral to helping people live healthier lives.[1] The U. S. Preventive Services Task Force (USPSTF), sponsored by the Agency for Healthcare Research and Quality, systematically reviews and evaluates the scientific evidence regarding a large number of preventive and screening services for a wide variety of conditions, including cancers, cardiovascular disease, infectious diseases, injury and violence, mental health conditions, and metabolic conditions. These rigorous reviews evaluate the benefits of primary preventive services in apparently health individuals, in order to make recommendations as to which services should be incorporated into routine primary care practice.[1] The USPSTF recommendations are widely considered to be the “gold standard” for preventive services.

Providing recommended preventive and screening services is an essential aspect of good quality primary care. Although USPSTF recommended preventive services have been shown to decrease morbidity and mortality, they are not always received as indicated. For example, data from the 2006 Behavioral Risk Factor Surveillance System (BRFSS) survey indicate that only 57.1% of adults aged ≥ 50 years have ever received colorectal cancer screening with sigmoidoscopy or colonoscopy, and only 24.1% report having had a fecal occult blood test within the past two years.[2] This is despite the highest level recommendation (level “A”) by the USPSTF for colorectal cancer screening.[1] The USPSTF also makes an “A” level recommendation for routine screening for lipid disorders in men aged 35 years or older and women aged 45 years or older, yet the 2007 BRFSS survey data indicate that only 74.9% of these individuals had been screened in the previous five years and 21.7% had never been screened.[2] Similarly, tobacco cessation counseling (“A” recommendation) is not systematically addressed.[3] Although rates of cholesterol screening and cervical cancer screening (also “A” recommendation) are generally higher, variations in the rates of all preventive and screening services have been noted between different groups and sub-populations, and depending on various patient and clinic characteristics.[2]

One such group is adults with disabilities. In 2005, the U.S. Surgeon General’s office released a “Call to Action to Improve the Health and Wellness of Persons with Disabilities”, which emphasizes that the attainment and maintenance of good health is as important for people with disabilities as it is for those without disabilities.[2, 4, 5] It is vital that people with disabilities receive healthcare services, including cancer screening and other prevention services, indicated for their age and gender regardless of disability status. Yet, this group may be the

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largest underserved subpopulation of Americans.[6] Multiple studies have found that adults with mobility impairments are less likely than those without mobility impairments to receive certain preventive and screening services.[7-13] Disparities between people with and without disabilities have been seen for the receipt of Pap testing, mammography, colorectal cancer screening, smoking cessation counseling, and vaccinations. Attitudes and knowledge of health care providers are frequently cited as problems in accessing adequate care by people with disabling conditions.[14-16] Clinician practices are repeatedly cited as contributors to these disparities[16-19], with the following barriers identified in several studies: 1) facility inaccessibility; 2) transportation; 3) healthcare system organization, processes, and policy; and 4) poor knowledge, awareness, and communication by clinicians and clinic staff.[20-23] Our project addresses barriers that are specifically related to the processes of health services delivery through primary care clinics, including the potential contribution of clinician and clinic staff knowledge and awareness of disability issues in the primary care setting.

II. Research Objective

The purpose of this project is to develop and pilot test an intervention designed to stimulate and help primary care clinics to: 1) identify their adult patients with mobility impairments; 2) improve their understanding of challenges encountered by adults with disabilities in the primary care setting, in general and in their own clinic; 3) identify and prioritize barriers to the receipt of certain preventive services by their patients; and 4) develop and implement a plan for changing their current clinic processes to address the barrier(s) that they identify.

The project complements another pilot project we are conducting through the RRTC. The other pilot project is of a workshop-format intervention for adults with disabilities, designed to improve patients' understanding of clinical preventive services and to increase patients' skills in using the healthcare system to assure receipt of indicated preventive services. After pilot testing, the two interventions (clinic-level and patient-level) are intended to be used together for maximum effectiveness, consistent with the "Chronic Care Model".[24, 25] The Chronic Care Model is an approach to improving clinical outcomes by optimizing the interaction of critical elements of the healthcare system. It focuses on the combination and interaction of patients who are informed and "activated" with regard to their own care, and a healthcare team that is prepared and "proactive" with regard to the patient's care. Together, these "activated" elements produce more productive interactions and best clinical outcomes. Originally designed to improve outcomes for chronic illnesses, the model has also been suggested as a means for improving other clinical outcomes, such as the receipt of preventive services.

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III. Methods

We developed a multi-part clinic intervention, to be used with the active participation of clinicians and clinic staff. To develop this intervention, we convened a day-long meeting of researchers and national experts in disability issues, preventive services, and primary care clinic process improvement. Several guiding principles emerged from this meeting. One guiding principle is the importance of making the process of clinic change participatory, with the active involvement of clinic staff from the beginning. Another guiding principle is the importance of recognizing that each clinical setting is unique and that the outcome of an intervention may be greatly influenced by the unique and subtle relationships and interconnections of the individuals acting within that setting.[26] Our intervention, therefore, is designed to facilitate changes that are uniquely suited to the circumstances of each individual primary care clinic. We are not aware of any previously existing approach for clinic process change to improve preventive service outcomes among adults with disabilities. We looked to a variety of existing approaches for improving preventive services in general clinic populations, and adapted elements of several of these for our intervention.[27-32] Our approach is informed and guided by the PRECEDE-PROCEED planning model.[33]

The intervention consists of multiple parts, as described below:

1) Patient Survey:

We developed a 34-item, self-administered survey of all patients aged 40 to 64 years, regardless of disability status, seen in the clinic during a four month period. This survey is administered before any other aspect of the intervention. The survey includes: a) screening questions to define and identify people with mobility impairments; b) questions for self-report of clinical preventive services received; and c) questions to assess the ease of use of the health care system from the participant's perspective. The specific preventive services assessed are: mammography, Pap test, colorectal cancer screening, cholesterol screening, overweight/obesity screening, and hypertension screening.

The survey serves three purposes: 1) The results are used to provide the clinicians and staff with information about the disability status of their patients, patients' report of receipt of preventive services, and patient feedback on the ease of receiving care at the clinic; 2) The survey items concerning disability status are being piloted for possible routine use in primary care practice; 3) Patients identified as having mobility impairments are entered into a patient registry for use in the clinic change phase of the intervention.

2) Clinic Staff Survey

We developed a 42-item, self-administered survey of clinicians and all clinic staff to assess baseline knowledge, attitudes, awareness and self-reported behavior regarding primary care for adults with disabilities. In addition to general awareness and understanding of issues of disability, the survey focuses on the indications for and provision of clinical preventive and screening services in disabled adults. The survey asks about the same set of preventive services included in the patient survey. This survey is to be administered again after the intervention to measure any changes in knowledge, attitude, and/or self-reported behavior.

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3) Intervention to Identify and Address Barriers to Care

We developed a four-part, facilitated intervention to be conducted during four 60 minute meetings of the clinic staff and clinicians, and additional time by clinic staff between meetings. The goals of these meetings are to increase awareness of general issues and barriers to primary care among adults with disabilities; to develop an understanding of possible challenges faced by the clinic's own patients with mobility impairments; to identify and prioritize barriers to the receipt of certain preventive services by their patients; and to develop and implement a plan for changing current clinic processes to address the barrier(s) that they identify. The four parts of the intervention are outlined below:

Part One: The first part of the intervention is directed at increasing awareness and understanding of the challenges faced by people with disabilities in the healthcare and clinic setting. Clinicians and staff view an educational video that addresses issues of access to medical care among adults with disabilities. They then receive general information on disparities in receipt of preventive services among adults with disabilities, and information regarding disparities in their own clinic. This latter information is from both the patient survey and from the utilization data of a Medicaid managed care organization.

Part Two: A panel presentation and discussion with adults with disabilities about the patients' experiences, both positive and negative, in receiving or not receiving preventive services. The discussion will also address myths and stereotypes regarding people with disabilities.

Part Three: A facilitated assessment of the current office system and clinic processes to identify barriers to receipt of one or more preventive services by adults with mobility impairments. The assessment uses a flexible flow diagram of clinic processes that can be customized to the individual clinic. Barriers are then prioritized using normative process technique to identify the barrier(s) that will be addressed with clinic process changes.

Part Four: Formulation and execution of a plan to change current clinic processes to improve preventive services for adults with disabilities by addressing the priority barrier(s). This part of the intervention uses materials adapted from an established method [28] to designate a leader, identify roles for staff, and to follow through on the plan. The clinic change plan will incorporate the patient registry generated from the patient survey.

4) Process Evaluation

Qualitative and quantitative measures are used to evaluate the quality, feasibility, and utility of the intervention. We use narrative reports from the clinics, key informant interviews, and chart review to assess the how the intervention is received by the clinic and how the clinic process change plan is executed. This information is used to inform changes in the approach.

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5) Measure of Change in Receipt of Preventive Services

Nine months after the initiation of the clinic process change, a medical record review is conducted to compare the “up-to-date” status of 50 patients with disability with 50 patients without disability. The patients compared will all be selected from the registry.

IV. Results

Our first objective was the development of a clinic intervention for: identifying adult patients with mobility impairments; improving knowledge and awareness of issues of disability in primary care; identifying barriers to the receipt of preventive services; and developing and implement a plan to address those barrier(s). We met this objective, as described above, with the design of two surveys and a four-part clinic intervention. Clinicians and staff at the study site have been enthusiastic and active in the piloting process, and have expressed the view that improving preventive care for their patients with disabilities is an important priority. The patient survey was well-integrated into routine practice and well-received by patients. Preliminary results of pilot testing are consistent with previous studies that have found disparities among adults with mobility impairments in the receipt of certain preventive services. At the lowest level of severity of disability, we found patients with mobility impairment to be less likely to report receiving Pap testing, mammography, and cholesterol screening. At higher levels of disability severity, patients with mobility impairment were less likely to report receiving colorectal cancer screening, in addition to Pap testing, mammography, and cholesterol screening. For each of these services, the likelihood of reported receipt of the service decreased with increasing severity of disability. We found no significant difference in reported ease or difficulty of using the healthcare system between those with and with disability.

V. Conclusions

We are not aware of any previously developed interventions to improve the provision of preventive services in the primary care setting and designed specifically for adults with disabilities. We have developed a multi-part clinic intervention that fills this need. Our preliminary results indicate that the need for improved preventive care for adults with disabilities may be appreciated by primary care clinicians and staff, and that our approach may be feasible and practical. We have also found that patients with disabilities are less likely than patients without disabilities to report receiving indicated preventive services. Upon completion of pilot testing, and any necessary refinements, we anticipate larger scale studies of this clinic level intervention in conjunction with the complementary patient level intervention.

VI. References

1. U.S. Preventive Services Task Force (USPSTF), Agency for Healthcare Research and Quality. *Guide to Clinical Preventive Services: Recommendations of the U.S. Preventive Services Task Force*. 2007 [cited 2008 April 18]; Available from: <http://www.ahrq.gov/clinic/uspstfix.htm>.

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2. Centers for Disease Control and Prevention (CDC), Atlanta, Georgia, U.S. Department of Health and Human Services. *Behavioral Risk Factor Surveillance System Survey Data*. 2007 [cited 2008 April 18]; Available from: <http://apps.nccd.cdc.gov/brfss/index.asp>.
3. Fiore, M.C., et al, *Preventing 3 million premature deaths and helping 5 million smokers quit: a national action plan for tobacco cessation*. American Journal of Public Health, 2004. **94**(2): p. 205-10.
4. Krahn, G. *Changing concepts in health, wellness and disability*. in *Proceedings of the State of the Science Conference & Policy Forum*, 2003. Portland, OR.
5. U.S. Department of Health and Human Services, *The Surgeon General's Call to Action to Improve the Health and Wellness of Persons With Disabilities* 2005, U.S. Department of Health and Human Services, Office of the Surgeon General Washington, DC.
6. DeJong, G., A. Batavia, and R. Griss, *America's neglected health minority: Working-age persons with disabilities*. Milbank Quarterly, 1989. **67**(suppl. 2): p. 311-51.
7. Chan, L., et al, *Do medicare patients with disabilities receive preventive services? A population-based study*. Archives of Physical Medicine and Rehabilitation, 1999. **80**: p. 642-46.
8. Iezzoni LI, M.E., Davis RB, Siebens H. , *Mobility impairments and use of screening and preventive services*. Am J Public Health, 2000. **90**(6): p. 955-61.
9. Jones, G. and P. Beatty, *Disparities in preventive service use among working age adults with mobility limitations*. Res Social Science Disability, 2003. **3**: p. 109-30.
10. Nosek, M.A. and C.A. Howland, *Breast and cervical cancer screening among women with physical disabilities*. Archives of Physical Medicine and Rehabilitation, 1997. **78**(12 Suppl 5): p. S39-44.
11. Cheng E, M.L., Wolf S, Shatin D, Cui X-P, Ellison G, Belin T, Vickery B, *Mobility impairments and use of preventive services in women with multiple sclerosis: observational study*. BMJ, 2001. **323**: p. 968-9.
12. Diab, M.E. and M.V. Johnston, *Relationships between level of disability and receipt of preventive health services*. Archives of Physical Medicine & Rehabilitation, 2004. **85**(5): p. 749-57.
13. Ramirez, A., et al., *Disability and preventive cancer screening: results from the 2001 California Health Interview Survey*. American Journal of Public Health, 2005. **95**(11): p. 2057-64.
14. Basnett, I., *Health care professionals and their attitudes toward and decisions affecting disabled people*, in *Handbook of Disability Studies*, G. Albrecht, K. Seelman, and M. Bury, Editors. 2001, Sage Publications, Inc.: Thousand Oaks, CA. p. 450-67.
15. NOD/Harris, *Detailed Results from the 2004 N.O.D./Harris Survey of Americans with Disabilities*. 2004, National Organization on Disability & Harris Interactive, Inc.: New York, NY.
16. Iezzoni, L.I., et al., *Use of screening and preventive services among women with disabilities*. American Journal of Medical Quality, 2001. **16**(4): p. 135-44.
17. DeJong, G., et al., *The organization and financing of health services for persons with disabilities*. Milbank Quarterly, 2002. **80**: p. 261-301.
18. Kaplin, D. and S. Litvak, *Barriers to health and wellness from a disability perspective*. J Gend Specif Med, 2002. **5**: p. 9-12.
19. O'Day, B., P. Dautel, and J. Scheer, *Barriers to healthcare for people with mobility impairments*. Manag Care Q, 2002. **10**: p. 41-51.
20. Drainoni, M., M. Vedrani, and J. Andrew, *Access to healthcare services for persons with disabilities: Defining the barriers and successful strategies for change*. 2003, Boston University School of Public Health: Boston, MA.
21. Lawthers, A., et al., *Rethinking quality in the context of persons with disability*. Int J Qual Healthcare, 2003. **15**: p. 287-99.
22. Reis, J., et al., *It Takes More Than Ramps to Solve the Crisis of Healthcare for People with Disabilities*. 2004, Rehabilitation Institute of Chicago: Chicago, IL.
23. Mele, N., J. Archer, and B.D. Pusch, *Access to breast cancer screening services for women with disabilities*. JOGNN - Journal of Obstetric, Gynecologic, & Neonatal Nursing, 2005. **34**(4): p. 453-64.
24. Glasgow, R.E., T.C. Orleans, and E.H. Wagner, *Does the chronic care model serve also as a template for improving prevention?* The Milbank Quarterly, 2001. **79**(4): p. 579-612.
25. Wagner, E.H., et al, *Improving chronic illness care: translating evidence into action*. Health Affairs, 2001. **20**: p. 64-78.
26. Leykum, L.K., et al, *Organizational interventions employing principles of complexity science have improved outcomes for patients with Type II diabetes*. Implementation Science, 2007. **2**(28).

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27. Crabtree, B., et al., *Primary care practice organization and preventive services delivery: A qualitative analysis*. J Fam Prac, 1998. **46**(5): p. 430-7.
28. Goodson, P., N.H. Gottlieb, and M.M. Smith, *Put prevention into practice. Evaluation of program initiation in nine Texas clinical sites*. American Journal of Preventive Medicine, 1999. **17**(1): p. 73-8.
29. Parchman, M.L. and S.K. Burge, *The patient-physician relationship, primary care attributes, and preventive services*. Family Medicine, 2004. **36**(1): p. 22-7.
30. Crabtree, B.F., et al., *Delivery of clinical preventive services in family medicine offices*. Annals of Family Medicine, 2005. **3**(5): p. 430-5.
31. Dietrich, A.J., et al., *An office systems approach to cancer prevention in primary care*. Cancer Practice, 1997. **5**(6): p. 375-81.
32. Saketkoo, L., et al, *Effects of a disability awareness and skills training workshop on senior medical students as assessed with ratings and performance on a standardized patient case*. Teaching and Learning in Medicine, 2004. **16**(4): p. 345-54.
33. Green, L.W. and M.W. Kreuter, *Health Promotion Planning: An Educational and Ecological Approach*. 4th ed. 2004, New York: McGraw-Hill.