Health Promotion: A Comparison of Outcomes to National Standards

by

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HEALTH PROMOTION: A COMPARISON OF OUTCOMES TO NATIONAL STANDARDS

Abstract

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For the past decade, health promotion and prevention strategies have been well-defined in published research. While some guidelines have yet to be linked to improved outcomes, others clearly have improved client outcomes such as better quality of life and reduced morbidity and mortality. Even in the face of clear and convincing research evidence, many health care organizations have failed to adopt quality measures to monitor clinician adherence to guidelines or, if monitors are in place, have failed to meet the Healthy People 2000 goals.

This paper will examine one of the largest health care organizations in the world (the Veterans Health Administration) and their success at meeting some of the goals set by Healthy People 2000.

Key Words: Veterans
Health Promotion
Prevention
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Introduction:

Health promotion activities and clinical practice guidelines have changed, or have been used to attempt to change, the way in which healthcare is delivered in the United States. Goals set in Healthy People 2000 were an attempt to create a paradigm shift from traditional “sick” care to “wellness” care. Numerous clinical guidelines have been developed by the U.S. Preventive Services Task Force (USPSTF) and the Agency for Healthcare Quality and Research (formerly the Agency for Health Care Policy and Research) to assist the health care industry in administering and monitoring timely and appropriate primary, secondary and tertiary prevention.

Health promotion and prevention activities are usually categorized into three levels as defined by the Centers for Disease Control (CDC) in 1992. Primary prevention is prevention of the occurrence of a disease, condition or injury ie: immunizations, weight loss, healthy eating, wearing seatbelts and bike helmets. Secondary prevention is early detection and intervention in the potential development or the existence of a disease ie: mammography, colorectal cancer screening, tobacco cessation. Tertiary prevention is treatment of a disease state to lessen its effects and to prevent further deterioration ie: chronic disease management (Cutler, 1999).

Health promotion is an important part of any health care system. In order to understand what should be expected from a health promotion program, McKenzie and Smeltzer, 1997 indicated that there are several assumptions that must be accepted. These are:

1. Health Status can be changed

2. Disease occurrence theories and principles can be understood
3. Appropriate prevention strategies can be developed to deal with the identified health problems.

4. An individual’s health is affected by a variety of factors, not just lifestyle. Other factors include heredity, environment, and the health care system.

5. Changes in individual and societal health behaviors and lifestyles will affect an individual’s health status positively.

6. Individuals, families, small groups and communities can be taught to assume responsibility for their health, which in turn changes their health behaviors and lifestyles.

7. Individual responsibility should not be viewed and victim blaming (we should not assign individual blame for illness based upon unhealthy lifestyle choices).

8. For permanent health behavior, an individual must be motivated and ready to change.

The Veterans Health Administration (VHA) arm of the Department of Veterans Affairs (DVA) strives to improve the quality of health care, including health promotion, through a comprehensive performance management system (Perlin, 2001). The VHA system of performance management was initiated in March of 1995 with the introduction the “Vision for Change”. In March of 1996 the “Prescription for Change” which outlined five mission goals and thirty-eight objectives for achieving change, was distributed. Objective number five of the Prescription for Change (1996) was to “Aggressively implement cost effective health promotion and disease prevention activities” (p.2). Through numerous national task forces the VHA developed a comprehensive set of health promotion guidelines pertinent to the population served.
by the VHA. Performance on the health promotion guidelines is measured monthly by the External Peer Review Program (EPRP). The West Virginia Institute of Medicine has a national contract with the VA to administer the EPRP. The EPRP reviewers visit every VA Medical Center in the nation to collect data on certain performance measures. This information is reported monthly to the Washington D.C. VHA Office of Performance and Quality and to the individual institutions. Performance on these Chronic Disease Indices (CDI) and Prevention Indices (PI) have become a major element in how individual performance is measured for top executives in the VHA at the Veterans Integrated Service Network (VISN) and at the medical center levels.

The purpose of this comparison is to review the performance of the VHA, non-VA health care and Healthy People 2000 goals for all of the health promotion measures that are common between VHA and Healthy People 2000. Such a comparison is important because as one of the largest health care organizations in the world, the VHA should be leading the health care industry in prevention. Kizer (1997) in his opening statement at the VHA Leadership Conference said “VHA’s performance should be the benchmark by which quality of healthcare in this country is judged” (p.7)

**Primary Prevention**

Primary prevention is health promotion activities that occur in a “well” population, prior to the onset of illness or injury and are designed to prevent or forestall any onset (McKenzie & Smeltzer, 1997). The VHA practices primary health promotion in the form of adult immunizations for influenza and pneumococcus. There are numerous other primary educational efforts in the VHA that target exercise and healthy eating, however, immunizations for influenza
and pneumococcus are the only primary interventions currently measured in VHA and that are substantially comparable to Health People 2000.

The goal for immunizing adults is to decrease the morbidity and mortality among the elderly and high-risk populations for pneumococcal infection and influenza. Although there remains some controversy over effectiveness of pneumococcal immunization among the low risk elderly (Weaver, Krieger, Castorina & Walls, 2001), there have been other studies demonstrating that pneumococcal immunization substantially reduces the pneumonia risk for high-risk patients (Nichol, 1999). A study of 1,900 elderly patients was conducted by Kristin Nichol of the Minneapolis VA. Results showed that pneumococcal vaccination was associated with a 43 percent reduction in the number of hospitalizations for pneumonia and influenza and a 29 percent reduction in the risk of death from all causes. In subjects who reported receiving influenza and pneumococcal immunizations, there was a 72 percent reduction in hospitalizations and an 82 percent reduction in deaths from all causes. Influenza immunization is clearly the best weapon in reducing morbidity and mortality related to influenza. Combining influenza and pneumococcal immunizations achieves the best result for high-risk populations.

Pneumococcal disease is responsible for approximately 40,000 deaths per year in the United States (CDC Education Handout Information, 1997). Pneumococcus alone is responsible for more deaths each year than all other vaccine preventable diseases combined. Streptococcus pneumoniae (pneumococcus) causes pneumonia, meningitis, bacteremia, otitis media and other lower respiratory disease (CDC Education Handout Information, 1997). In the United States, pneumonia is a major cause of mortality and Streptococcus pneumoniae is the leading cause of community-acquired pneumonia (Feikin, Schuchat, Kolczak, & Barrett, 2000). Of deeper concern is the fact that bacteria have become resistant to some of the most commonly used
antibiotics. This makes vaccination even more important. Prevention may indeed be the only durable weapon against pneumococcal infection (Harwell & Brown, 2000).

Pneumococcal vaccination is recommended for all high risk individuals. The Advisory Committee for Immunization Practices (ACIP) has defined high risk populations as all people over the age of 65 and those with increased risk factors such as chronic heart or lung disease, liver disease, diabetes mellitus, anatomic or functional asplenia and immunocompromised patients. Regardless of age, CDC-ACIP recommends that these groups receive pneumococcal vaccine at least once (CDC-ACIP 1997).

In 1991 goals for vaccination against pneumococcal disease for the above-mentioned high-risk populations were published in Healthy People 2000. A major goal was to increase pneumococcal immunizations among people age 65 and over, and for those at high risk to at least 60 percent (Healthy People 2000: Priority Area 20 - Immunizations). For the year 2000, the VHA set the goal for pneumococcal immunization at 85 percent for all patients who are enrolled in VHA care and meet the above criteria for vaccination.

Influenza epidemics occur during the winter months nearly every year in the United States and are responsible for nearly 20,000 deaths annually (ACIP, 2000). The influenza virus changes every year requiring a new vaccination annually. This past flu year (beginning October 2000) the ACIP lowered the recommended age from 65 to 50 years of age. The high risk factors remained essentially the same; those with chronic heart and lung disease, institutionalized patients and health care workers. The Healthy People 2000 goal for influenza vaccination was the same as the goal for pneumococcal immunization; 60 percent (Healthy People 2000: Priority Area 20 - Immunizations).
Clearly, improving the rates of pneumococcal and influenza immunizations can have a positive impact on reducing morbidity and mortality. Table 1 shows the comparison of Healthy People 2000 goals, VHA national data for the fiscal year ending September 30, 2000 and the Behavior Risk Factor Surveillance System (BRFSS) national data reported for 1999.

**Measurement**

The VHA year 2000 pneumococcal immunization goal was 85 percent. As shown in Table 1, cumulative performance for the year 2000 for VHA was 73 percent (EPRP 2000). The VHA numerator was all subjects in the sample who were 65 or older or at high risk who had ever received the vaccination. The denominator was a sample of subjects 65 or older or at high risk that should have received the vaccination (excluding those who were offered but refused the vaccine). BRFSS data are self-report data that are collected by each state and reported nationally. The measure in BRFSS is a question asked of people 65 years and older whether they have had the vaccine or not.

The VHA year 2000 influenza immunization goal was 85 percent. As shown in Table 1, cumulative performance for the year 2000 for VHA was 60 percent (EPRP 2000). The numerator was all subjects in the sample who were 65 or older, or at high risk, and receiving the vaccination. The denominator was a sample of subjects 65 or older or at high risk that should have received the vaccination (excluding those who were offered but refused the vaccine). The BRFSS measure is a question asked of people 65 years and older whether they had received the vaccine in the past twelve months.
Limitations of the Comparison

The measure that was set for the VHA for adult immunizations was criticized nationally for excluding refusals from their data collection and subsequent reporting. Consequently, the measure for the year 2001 has changed and will reflect refusals in the denominator. This will present a better estimate of overall immunization rates in the VHA population. Data collected thus far in fiscal year 2001, using the new measure, show a pneumococcal immunization rate of 79 percent (EPRP 2001). Data for 2001 influenza immunizations were first reported in December 2000 and an immunization rate of 84 percent was found. BRFSS only questioned people age 65 and older regarding immunizations; therefore, the data do not specifically include the high risk populations in the question of whether or not the vaccine was received for influenza or pneumococcus.

Secondary Prevention

Secondary Prevention was defined by McKenzie and Smeltzer in 1997 as “Preventive measures that lead to early diagnosis and prompt treatment of the disease, illness or injury to limit disability, impairment or dependency and prevent more severe pathogenesis” (p.5). The VHA performs a number of secondary prevention activities. Tobacco cessation advice, colorectal cancer screening, breast and cervical cancer screening, obesity screening and prostate cancer screening advice are some of these activities. While early cancer detection for colorectal, breast and cervical cancer is clearly an important prevention activity, tobacco use is responsible for the highest cancer mortality rate in our nation; lung cancer.

Nationally, the prevalence of cigarette smoking has hovered around the 25 percent mark (Healthy People 2000 Priority Area 3: Tobacco). Tobacco use is blamed for approximately one
out of every five deaths in the United States and is the single most preventable cause of death and disease. It is estimated that 87 percent of all lung cancer deaths are attributable to smoking as well as 82 percent of all chronic obstructive pulmonary disease deaths. Additionally, smoking is responsible for more than 5 million years of potential life lost each year. Smoking related illnesses are a tremendous drain on health care resources, accounting for nearly $50- billion in health care costs in 1993 (Healthy People 2000 Priority Area 3: Tobacco).

Tobacco cessation advice is an important secondary health promotion activity aimed at reducing the inevitable devastating health effects of smoking and the related health care costs. The Agency for Healthcare Research and Quality through the Surgeon General’s office and the U.S. Department of Health and Human Services (USDHHS) has provided a comprehensive clinical practice guideline for tobacco cessation that recommends every healthcare institution and managed care organization adopt specific strategies for identifying smokers, encouraging them to quit and offering pharmacological intervention and social support/counseling (USDHHS, June 2000).

Measurement

The VHA measured the percent of tobacco users who have received tobacco cessation counseling at least three times in the past year. The measure is reported as cessation advice offered three times or at every primary care visit if less than three visits. The denominator is known tobacco users who have had at least one primary care visit in the past year. Nationally the VHA reported a cumulative performance for the fiscal year ending September 2000 of 49 percent (see Table 2).
The Healthy People 2000 goal for tobacco cessation advice is to increase to at least 75 percent the proportion of primary care and oral health care providers who routinely advise cessation and provide assistance for follow-up of all their tobacco using patients (Healthy People 2000 Priority Area 3: Tobacco). According to the Health Employer Data Information Set (HEDIS) data collected in 1999 and reported in 2000, 65 percent of adult smokers and recent quitters reported receiving advice to quit from a health care professional (HEDIS, 2000). There is no equivalent question for tobacco cessation advice currently available in BRFSS data. Table 2 notes the comparison between VHA National and HEDIS reported data.

Quitting tobacco is the goal of screening for tobacco use and offering cessation counseling. Nationally, implementation of tobacco-related, evidence-based guidelines has been less than optimal. A recent national survey of managed care organizations found that less than 10 percent of the respondents had fully implemented the clinical practice guidelines for tobacco use (McPhillips-Tangum, 1998). It is disturbing that while tobacco use remains the largest contributor to premature morbidity and mortality, there are not more health care provider organizations adopting tobacco cessation guidelines. The simple intervention of talking to our smoking patients about quitting or at least reducing the number of cigarettes they smoke can help get them on the path to completely quitting (Bolliger, 2000).

Limitations of the Comparison

The Healthy People 2000 goal for cessation advice was receipt of advice to quit smoking within the last 12 months from a medical or dental provider. The HEDIS measured only whether the smoker or recent quitter had received advice to quit within the past year. The VHA goal was set at 55 percent and measured those smokers who had received counseling at least three times in
the past year or at every visit (if less than three during the year) with their primary care provider. Advice from dental care providers was not included in the VHA numerator.

While the measures are not comparable to each other in the strictest sense, they do show the efforts of the VHA and some other health care organizations to decrease the proportion of their population who are smokers. These efforts meet the spirit of the intent of the Healthy People 2000 goal for tobacco cessation advice and, with persistence, should help to meet the goal for Healthy People 2010 to increase the number of smoking cessation attempts among adult smokers.

Tertiary Prevention

Tertiary Prevention is defined by McKenzie and Smeltzer (1997) as “Preventive measures aimed at rehabilitation following significant pathogenesis” (p.5). Cutler (1999) defines tertiary prevention as treatment of a disease state to lessen its effects and to prevent further deterioration ie: chronic disease management. The VHA has numerous clinical practice guidelines that are evidence based for diabetes, ischemic heart disease, chronic heart failure, chronic obstructive pulmonary disease, diabetes mellitus and hypertension.

Healthy People 2000 has set goals in diabetes management for outcomes related to end stage renal disease, blindness and lower extremity amputation. The VHA has clinical practice guidelines for diabetes that include measures for urine protein and microalbumin monitoring and foot inspection, pulses and sensation in an effort to reduce or delay the onset of renal failure and lower extremity amputation (EPRP 2000). However, the only VHA guideline that is actually comparable to a Healthy People 2000 goal is that for diabetic retinopathy screening.

It is estimated that each year 12,000–24,000 people become blind because of diabetic eye disease (CDC Diabetes, 2000). Early detection and treatment can prevent
up to 90 percent of this blindness. If all people with diabetes received recommended screening and follow-up for eye disease, the annual savings to the federal budget could exceed $470 million. (CDC Diabetes, 2000). More importantly, pain and suffering would be reduced and quality of life would be vastly improved for this diabetic population.

The goal for Healthy People 2000 is to increase to 70 percent the proportion of people with diabetes who have an annual dilated eye exam (Health People Priority 17: Diabetes and Chronic Disabling Conditions). The VHA measure is defined as all diabetics who have been screened for diabetic retinopathy in the past year (for insulin dependent diabetics) or in the past two years (for non-insulin dependent diabetics who have had a previous normal exam) the denominator is all diabetics in the sample (veterans with a diagnosis of diabetes) and a numerator of all non-insulin dependent diabetics with a hemoglobin A1c of <8 (glucosylated hemoglobin) who have had a previous normal eye exam in the past twenty-four months and all other diabetics who have had an exam in the past twelve months. Table 3 shows the comparison of VHA performance to the HEDIS 2000 data and the Healthy People 2000 goal.

Limitation of the Comparison

The VHA guidelines for diabetic eye exams are more comprehensive than Healthy People 2000 Goal number 17.23 “to increase to 70 percent the proportion of people with diabetes who have an annual dilated eye exam” (p.175). The VHA has allowed more clinical discretion when the person is a “mild” diabetic and has had a previous normal exam.

HEDIS measures are primarily used in managed care organizations and do not capture activities performed in non-managed care organizations.
Summary

The VHA has numerous clinical practice guidelines, and for their most frequent diagnoses, comprehensive prevention guidelines. The comparisons in this review are limited to those measures that could reasonably be compared to Healthy People 2000 goals and for which there were some non-VA data available for comparison.

The VHA has met and surpassed the Healthy People 2000 goals for adult immunizations and early data indicate that the VHA exclusion of refusals in the original measure is probably not statistically significant in overall performance for previous years.

Measures for tobacco cessation advice and diabetic retinal exams demonstrate that nationally, the VHA has fallen short of Healthy People 2000 goals, however, the reasons for this are not simple nor are they unique to the VHA system. Competing demands for the time a primary care provider has to spend with a patient is clearly a barrier to effective health promotion activities. Patients have their own health care agenda when they come to see their primary care provider. Rarely is health promotion included in the patient’s agenda (Amonker, 1999). Many primary care providers are expected to see one patient every fifteen to twenty minutes. This leaves little time for comprehensive health promotion activities, particularly primary prevention that is geared toward counseling and patient education to promote behavior change.

Individual provider attitudes and practice also play an important role in the effectiveness of health promotion. Physicians who believe that counseling has low efficacy for improving health care outcomes, will not engage in most primary prevention activities (Jaen, Stange & Nutting, 1994). Type of visit also plays a role in whether health promotion is addressed during the visit. Typically, “sick” or “acute” visits do not leave sufficient time for health promotion activities. Physicians are most likely to perform general preventive services during routine
annual health exams and well-care visits. However, the current health care system, particularly in managed care, is geared more toward “sick” care than toward “health” care (Amonker, 1999). Some physicians perceive their responsibility as curative rather than preventive. It is difficult to change physician practice simply by publishing guidelines (Mittman, 1992).

Patient perceptions can also be a barrier to providing effective health promotion. Patients who seek only “sick” care are already at risk for not receiving adequate health promotion intervention because of limited encounter time that is most likely focused on the acute problem at hand (Morgan, 1998). For most lower income people the idea of seeking medical care solely for preventive services is foreign (Gerrity, 1999). This supports the recommendation of many to integrate preventive services into all types of medical encounters (Jaen, 1994).

Conclusion

In its position statement issued in 1995, the American Nurses Association (ANA) offered a recommendation for nurses in health promotion and prevention. The ANA recommends that nursing expand its efforts in designing and implementing interventions that support health promotion and prevention of disease, illness and disability. Approaches to health promotion and prevention must be comprehensive and encompass primary, secondary and tertiary levels of prevention and include input from the consumers on their formulation. The starting point for the ANA recommendations should be in the form of standardizing nursing’s approach to certain screening and preventive activities.

The concept of the registered nurse as a leader in health promotion is supported by the ANA. In many of the medical centers in the VHA system, the immunization process has been reduced to standing order protocols and is independent of individual physician or primary care provider orders. Data in Table 1 demonstrated the VHA’s success in meeting and exceeding
Healthy People 2000 goals for immunizations. Nurses have also taken on much of the responsibility for education and counseling of the patients. The pressure is on to improve performance and nurses can get the job done.

Experience over the past decade should have demonstrated to the health care industry that relying on physician or primary care provider intervention with each individual for routine screening and prevention will never meet the goals set by Healthy People 2000 or 2010. Examination of all of our prevention guidelines and clinical practice guidelines and reduction of as many of them as possible to standing protocols seems warranted. Laboratory tests and routine screening exams that currently require a physician or primary care provider order could be reduced to protocols that are automatically ordered if the patient meets the criteria. Such a system change would empower the registered nurse and other non-physician health care providers to integrate health promotion and prevention activities as part of routine practice in a variety of health care settings and encounters. The result would be less variation in clinical practice, particularly for prevention, and improved outcomes for everyone.
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Table 1: Influenza and Pneumococcal Immunizations

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Table 2: Tobacco Cessation Advice

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Table 3: Dilated Eye Exam for Diabetics

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