Appendix D

Summary of Recommendations for Periodic Health Examinations in the Elderly

Visit Frequency

In recent years the worth of a yearly, or regularly scheduled, physical examination by a physician has been questioned and for the most part rejected by health professionals. Instead, the concept of a periodic health examination for the delivery of certain proven preventive measures at specific intervals has been promoted. Government agencies, professional societies, and consumer groups have made or are developing recommendations either directly about periodic health examinations, or about specific screening or preventive technologies that require physician visits. Since these types of recommendations are not always specific about when physician visits are necessary or when care may be provided by a nonmedical professional, OTA has attempted to review some of the recommendations and assess how they translate into physician visits for the elderly. Table D-1 summarizes the recommendations for physician visits made by leading groups.

The Canadian Task Force on the Periodic Health Examination (CTF), which was established in 1976 and issued its first report in 1979, was the first major organization to formulate a plan for a lifetime program of periodic health assessments for the Canadian people. After studying more than 90 potentially preventable conditions, CTF made recommendations for preventive services for 78 of them. CTF determined that for the most part, procedures should be carried out as case-finding rather than screening techniques (they should be performed during a physician visit for unrelated symptoms rather than during preventive visits). There are exceptions to this methodology, however. CTF recommends that pregnant women, the very young, and the very old schedule visits specifically for preventive purposes.

The main result of the CTF's 1979 publication is a set of age- and sex-specific health packages designed to ensure the delivery of proven preventive measures at effective intervals. For the elderly, two health packages were derived; one for men and women aged 65 to 74, and one for men and women aged 75 and over. Both contain the same basic set of tests, immunizations, and health assessments with the main difference being the frequency of physician visits recommended for the old and very old. Since its first report in 1979, CTF has published updates in 1984, 1986, 1988, and 1989, in which the appropriateness of screening for new conditions is assessed or older recommendations are reassessed.

With similar goals in mind, the U.S. Government established its own Preventive Services Task Force (USPSTF).[1] Appointed in 1984, the Task Force worked closely with CTF to develop age- and sex-specific recommendations for clinical preventive services in addition to addressing "the behavioral and structural barriers to the successful integration of preventive services into clinical practice" (57). The Task Force adopted the rules of evidence and classification developed by CTF. Since April 1987, the Task Force periodically published its recommendations on specific preventable medical conditions in the *Journal of the American Medical Association. In* addition, its final report, *Guide to Clinical Preventive Services: Report of the U.S. Preventive Services Task Force*, which contains all of its age- and sex-specific guidelines, was published early in 1989.

The task force conveys its findings in two ways: by constructing age-specific charts suggesting the optimal frequency of physician visits for different age groups, and by providing specific recommendations concerning each of the 60 illnesses and conditions reviewed and the effectiveness of the screening interventions assessed.

For the elderly, USPSTF recommends a yearly physician visit that includes screening, counseling, and immunization components. Screening, in turn, involves a history, physical examination, and laboratory procedures.[2] Counseling is geared toward diet, exercise, substance use, injury prevention, and dental health. Immunizations for tetanus-diphtheria (every 10 years), influenza (annually), and pneumonia are suggested. In addition, glaucoma testing by an eye specialist is recommended.

Other government-sponsored recommendations for physician visits come from the National Cancer Institute (NCI) whose published guidelines, "Working Guidelines for Early Cancer Detection, " promote physician visits by encouraging physicians to use available cancer detection maneuvers. The implication of the guidelines is that the recommended tests would be done by a physician, or in conjunction with a physician visit. Since NCI suggests annual fecal occult blood tests starting at age 50 (both

[1] The Task Force is a non-Federal, multidisciplinary, national panel appointed by the government to make recommendations to the Public Health Service.

[2] The physical exam would include: height, weight, blood pressure, visual acuity, hearing, and clinical breast exam (annually for women until age 75, unless pathology detected); laboratory procedures recommended are: nonfasting total blood cholesterol, dipstick urinalysis, mammogram (every 1 to 2 years for women until age 75, unless pathology detected), and thyroid function tests (for women). The Task Force also makes specific screening recommendations for elderly persons who are at high risk for particular conditions; these include: fasting plasma glucose, tuberculin skin test, electrocardiogram, Pap smear, fecal occult blood/sigmoidoscopy, and fecal occult blood/co\ onoscopy.

Table D-1--Recommendations for Physician Visits for the Elderly

Group	Scope of recommendations/study	Implications for physician visits	Comments
Canadian Task Force, 1979, 1984, 1986, 1988[a]	Extensive recommendations on appropriate components of physical examination, immunizations, counseling, and laboratory investigations	Biannual physician visit from age 65 to 74; annual physician visit from age 75 on	CTF also recommends certain tests be done annually between age 65 and 74:mammography (for Women), stool occult blood test, and examination of oral cavity and counseling on oral hygiene; these could be done by other health professionals
U.S. Preventive ServicesTask Force, 1989[b]	Extensive recommendations on appropriate components of physical examination, immunizations, counseling, and laboratory investigations	Annual physician visit recommended from age 65 on	For most tests screening frequency is left to physician's discretion: nonfasting cholesterol, urinalysis, vision and glaucoma screening, and thyroid function test
National Cancer Institute, 1987[c]	Guidelines aimed at encouraging physicians to screen for cancer (melanoma and breast, cervical, prostate, colorectal, testicular, and oral cancer)	Annual physician visit implied for women starting at age 50 and men starting at age 40	NC I emphasizes that these screening maneuvers are part of a physician visit
Project INSURE, 1988[d]	Study participants age 65 or over received physician examination and history, laboratory tests, immunizations, and patient education according to Project INSURE'S model (based on age, sex, and risk factors)	Biannual physician visit from age 65 to 74; annual physician visit from age 75 on	Mammography and stool occult blood test given annually; Pap smears given for three consecutive negative results
American Cancer Society, 1988[e]	Recommendations for screening for colorectal, cervical, endometrial, breast, thyroid, testicular, ovarian, lymph node, oral region, and skin cancer	Annual health counseling and cancer checkup beginning at age 40	In addition, ACS advises that certain tests be done at specific intervals: sigmoidoscopy--every 3 to 5 years after two satisfactory results; stool occult blood test—annually; digital rectal examination--annually; Pap test—annually for 3 negative results then at physician's discretion; breast physical examination—annually; and mammogram-annually
Health Policy Agenda for the American People,1986f	Describes a minimum set of health insurance benefits for Americans	Annual physical examinations beginning at age 50	Specific recommendations for the components of the physical examination are not made, but Project INSURE and the Canadian Task Force on the Periodic Health Examination are cited as sources for determining the components

a Canadian Periodic Health Examination Task Force, "The Periodic Health Examination," *Car?. Med. Assoc. J.* 121(9):1193-1254, 1979; 130(10):1276-1292, 1984; 134(7):724-727, 1986; 138(7):618-626, 1988.

b U.S. Preventive Services Task Force, Guide to *Clinical Preventive* Services (Baltimore, MD: Williams & Wilkins, 1989).

c Early Detection Branch, Division of Cancer Prevention and Control, National Cancer Institute, National Institutes of Health, U.S. Department of Health and Human Services, "Working Guidelines for Early Cancer Detectlon: Rationale and Supporting Evidence to Decrease Mortality" (Bethesda, MD: December

d Lifecycle Preventive Health services Projecct, "Final Report of the INSURE Project" (New York, NY: September 1988).

e American Cancer Society, *Summary of Current Guidelines for the Cancer-Related Checkup: Recommendations* (New York, NY: ACS professional Education Publication, 1988).

f Ad Hoc Committee on Basic Benefits, Health Policy Agenda, "Basic Benefits Package" (Chicago, IL, June 1988).

SOURCE: Office of Technology Assessment, 1990.

Table D-2—Published Recommendations for the Use of Selected Preventive Services by Older Adults[a]

Preventive service	CDC[b]	ACP	NIH[d]	CTF[e]	USPSTF	Professional societies	Consumer organizations
Tetanus immunization	Booster every 10 years if primary series has been done	Booster every lo yews		Booster every 10 years	Booster every 10 years		
Pneumococcal immunization	Overage 66-once	Over age 65--once		High risk patients-once	Age 65 and over—once		
Influenza Immunization	Overage 65-every year	Over age 65-every year		Over age 65--every year	Age 65 and over—every year		
Occult blood in stool			*NCI:* over age *50*--every year		Annually for those at high risk		ACS: over age 50-every year
Slgmoidoscopy			NCI: over age 50--every 3-5 years		At physician's discretion for those at high risk		ACS over age 50-every 3 to 5 years after 2 negative tests
Digital rectal exam			NCI: over age 40-every year	Not recommended for prostate cancer; no recommendation for enlarged prostate screening			ACS: over age 40-every year
Clinical breast examination		Over age 40--every year	NCI Age 40-50-every 1 to 2 years with mammography: age 50 and over—annually	Every year from age 50 to 59	Over age 40-every year	ACR, ACOG, AMA" Age 40 50-every 1 to 2 years with mammography, age 50 and over-annually	ACS: Age 40-50--every 1 to 2 years with mammography, age 50 and over-annually
Mammography		Over age 50-annually	NCI: Age 40-50-every 1 to 2 years with mammography; age 50 and over-annually	Between ages 50 and 59-every year	Over age 50--every 1 to 2 years	ACR, ACOG, AMA: Age 40-50-every 1 to 2 years with mammography; age 50 and over-annually	ACS: Age 40-50-every 1 to 2 years with mammography; age 50 and over-annually
Cholesterol screening		Recommended at 5-year intervals for asymptomatic, low-risk men, optional for women and elderly persons	NHLBI over age 20—every 5 years		Recommended at physician's discretion		AHA. supports NHLBI recommendations
Pap smear			NCI: over age 18 or if sexually active--3 consecutive annual Pap smears and pelvic exams with negative results,then less frequently at discretion of physician	Every 5 years from age 35 to age 60; screening should continue if prior smears have been abnormal	Every 1 to 3 years for women who have not had previous consistently negative smears	ACOG, AMA, ANA, AAFP, AND AMWA: support NCI guidelines	ACS: supports NCI guidelines
Serum glucose		Not recommended for asymptomatlc healthy adults		Not recommended without family history of diabetes or previous circulatory problems	Recommended only for the markedly obese, persons with family history of diabetes, or women with history of gestational diabetes		ADA" people at risk should be screened (no frequency specified) AHA: every 5 years from age 20 to 75; optional after age 75 if baselines are well-documented

Table D-2--Published Recommendations for the Use of Selected Preventive Services by Older Adults--Continued

Preventive service	CDC[b]	ACP[c]	NIH[d]	CTF[e]	USPSTF[f]	Professional societies[g]	Consumer organizations[h]
Blood pressure			**NHLBI: over age 18—** at least every 2 years, **depending previous reading**	**Over age 65-every 2 years**	**Recommended** regularly at interval determined by physician		AHA: every 15 years starting at age 20
EKG		**Not recommended m asymptomatlc** persons		**Recommended for symptomatic adults only**	Recommended for symptomatic adults only and other other specific circumstances		AHA: at ages 20,40, and 60
Vision examination including glaucoma screening by tonometry				**No recommendation to screen**	Vision screening suggested at physician's discretion; glaucoma **screening might be clinically prudent, frequency to be determined by physician**	**AOA: over age 40-every year AAO: over age 40-every 2 to 5 years**	**NSPB: over age 35-every 2 years**

ABBREVIATIONS AAFP. American Academy of Family Physiclans. AAO = American Academy of Ophthalmology: ACOG. American College of Obstetricians and Gynecologists, ACP = American College of Physlclans, ACR = American College of Radiologists, ACS = American Cancer Society, ADA = American Diabetes Association, AHA . American Heart Assoclatlon, AMA. American Medical Assoclatlon, AMWA. American Medical Women's Assoclation, ANA = American Nurses Association, AOA = American Optometric Assoclation, CDC = Centers for Disease Control, CTF = Canadian Task Force, EKG = electrocarchogram, NC I = National Cancer Institute, NIH = National Institutes of Health, NSPB = National Society to Prevent Blindness, and USPSTF = United States Preventive Services Task Force

[a]Thls table does not include screening recommendations for all adults, In some cases where recommendations for younger age groups differ from those for the elderly. only the recommendations for the elderly are included

Centers for Disease Control, Public Health Service, U S Department of Health and Human Services, *Adult Irnrnunlzations Recornrnendation)of the Immunizatlon Practices* Committee, undated.

[c]American College of Physicians-immunizations. American College of Physicians, Committee on Immunlzatlons, Guide *for Adult* Immunization (Philadelphla, PA: 1985); clinical breast examination and mammography D M Eddy, "screening for Breast Cancer, " *Ann Intern Med* 111(5) 389-399, 1969, cholesterol A M Garber, H C Sex, and B Littenberg, "Screening Asymptomatic Adults for Cardiac Risk Factors The Serum Cholesterol Level " *Ann Intern Med* 11 0(8) 622-6391989; serum glucose D E Singer, J H. Samet, C M Coley et al., "Screening for **Diabetes Mellitus**, *Ann. Intern* Med 109639-649, 1988; EKG H C %x, A M. Garber, and B Littenberg, "The Resting Electrocardiogram as a Screening Test, A Clinical Analysis," Ann. *Intern.* Med 111(6) 469-502, 1989

[d]Cancer: Early Detection Branch, Division of Cancer Prevention and Control, National Cancer Institute, National Institutes of Health, U.S. Department of Health and Human Services, "Working Guidelines for Early Cancer Detection Rationale and Supporting Evidence to Decrease Mortality" (Bethesda, MD December 1987), and "National Organizations Agree on Joint Mammography Guidelines," press release from the National Medical Roundtable on Mammography Screening Guidelines, June 27, 1989, cholesterol National Cholesterol Education Program, National Heart, Lung, **and Blood** Institute, National Institutes of Health, U S Department of Health and Human Services, "Report of the Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults," (Bethesda, MD: October 1987); blood pressure' Joint National Committee, "The 1988 Report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure," *Arch* Intern. Med. 148(5).1023-1038, 1988.

[e]Canadian Periodic Health Examination Task Force, "The Period/c Health Examination," *Can.* Med. *Assoc J* 121 (9):1193-1254, 1979, 130(10)"1276-1292, 1984, 134'721 -729, 1986; and 141:209-216, 1989

[f]U.S. **Preventiv,** Services Task Force, *Guide to Clinical Preventive Services* (Baltimore, MD: Williams & Wilkins, 1989).

[g]Clinical breast examination and mammography. AAFP, ACR, AMA, AMWA, "National Organizations Agree on Joint Mammography Guidelines," press release from the National Medical Roundtable on Mammography Screening Guidelines, June 27, 1989, American College of Obstetricians and Gynecologists, personal communication with Lynne Lawrence, Government Relations Representative, Washington, DC, Oct. 31, 1988; Pap smear (ACOG, ACS, NCI, AMA, ANA, AAFP, and AMWA), D.J. Fink, "Change in American Cancer Society Guidelines for Detection of Cervical Cancer," *CA-A Journal for Clinicians 38(2)* 127-128, 1988; vision examination American Optometric Association, "Optometry and the Natlon's Health: Recommendations for the Implementation of Congress' National Health Priorities," a working paper prepared by the National Health Division, February 1978, American Academy of Ophthalmology, Policy Statement, "Frequency of Ocular Examinations," approved Feb. 6, 1983.

[h]American Cancer Society, "Summary of Current Guidelines for the Cancer-Related Checkup: Recommendations" (New York: ACS professional Education Publication, 1988), D.J. Fink, "Change in American Cancer Society Guidelines for Detectlon of Cervical Cancer," *CA-A Journal for Clinicians* 38(2):127-128, 1988; and '(National Organizations Agree on Joint Mammography Guidelines," press release from the National Medical Roundtable on Mammography Screening Guidelines, June 27, 1989, American Diabetes Association, "A.D A. Policy on Screening for Hyperglycemia," June 1983; American Heart Association (cholesterol screening), "Public Screening Strategies for Measuring Blood Cholesterol in Adults-Issues for Special Concern," October 1987 (serum glucose, blood pressure, EKG, and physical examination), S.M. Grundy, P. Greenland, A. Herd et al,, "Cardiovascular and Risk Factor Evaluation of Healthy American Adults," *Circulation* 75(6) *-1362A, 1987;* **and** American Society for the Prevention of Blindness, "Facts on Blindness and Prevention," February 1988,

SOURCE: Office of Technology Assessment, 1990.

sexes), annual mammography at age 50 (women), and annual digital rectal examination of the prostate starting at age 40 (men), an annual physician visit is implied for all adults over age 65.

In recent years, several professional groups from the private sector have taken an interest in investigating the effectiveness of preventive services. The INSURE project was an 8-year study of prevention in primary medical care, sponsored by the industry wide Network for Social, Urban, and Rural Efforts. Project INSURE provided physicians with a model for providing early detection and treatment of disease and the provision of health education that is based on each patient's age, sex, and risk factors (the model specifies the appropriate physical examinations, lab tests, immunizations, and x-ray studies to be provided) and emphasized patient education as a means of reducing the risk of coronary heart disease, cancer, stroke, and automobile injuries. The INSURE project included health packages for the study participants according to age. The package for adults age 65 to 74 consists of five physician visits (every 2 years) in addition to an annual stool occult blood test and mammography (for women). The four basic components of each visit were the following:

- history and physical examination (monitoring of weight, blood pressure measurement, breast and rectal exam, and assessment of hearing problems);
- lab tests (plasma total cholesterol and glucose, and a Pap smear every 3 years for 3 annual negatives (for women));
- immunizations (tetanus and influenza shots); and
- patient education (counseling about risk factors of cancer, heart disease, accidents, and aging).

For the elderly age 75 and over the components of the physical exam are the same but the recommended frequency is every year.

In June 1988, the Health Policy Agenda for the American People (HPA), a public and private sector initiative aimed at identifying and addressing health care issues, and administratively supported by the American Medical Association, published its basic benefits package. It promotes periodic medical examinations based on age, sex, and risk factors. HWA recommends annual examinations for adults from age **50** onward. The content of the examinations is based on both the INSURE project model and Canadian Task Force on the Periodic Health Examination 1984 Update.

Finally, the American Cancer Society's (ACS) recommendations for appropriate cancer screening suggests an annual physician visit for men and women 40 and over for cancer 'detection. In addition, ACS' disease-specific cancer screening recommendations would also imply an annual physician visit for the elderly.

Specific Preventive Services

Table D-2 summarizes the published recommendations for the use of selected preventive services by older adults. It includes selected sets of recommendations made by professional or expert groups for older adults, primarily for those over 65 years old. The summary is not exhaustive; rather it includes a range of views on the use of preventive services. As table D-2 indicates, there is nearly complete agreement among the included groups making recommendations for immunizations for the elderly. For screening services there is a high degree of consistency among groups, but some disagreement does exist.

A more detailed comparison of recommendations for colorectal cancer screening highlights the disparities that can arise among recommending groups (see table D-3). While the National Cancer Institute, American Cancer Society, and the American Society of Gastroenterology support periodic screening for colorectal cancer, the USPSTF and Canadian Task Force are much less supportive of this approach.

Table D-3--Recommendations for Screening for Colorectal Cancer in the Elderly

Country/organization (date of organization)	Screening recommendation by procedure		
	Digital rectal examination	Fecal occult blood testing	Sigmoidoscopy
United States:			
NCI[a] (1987)	Considered part of routine physical examination	Annually	Every 3 to 5 years
ACS[b] (1988)	Annually	Annually	Every 3 to 5 years after two negative sigmoidoscopies 1 year apart
ASGE & AGAc (1988)	Frequency unspecified		Flexible sigmoidoscopy starting at 50, frequency unspecified
SPSTF[d] (1989)	Digital rectal examination is not an effective screening maneuver, Task Force found insufficient evidence to recommend for or against screening with fecal occult blood test or sigmoidoscopy in asymptomatic persons, but notes it maybe advisable to offer screening to persons 50 and older with risk factors; Task Force does not specify a screening frequency		
Canada:			
CTF[e] (1988)		Not recommended unless specified risk factors are present	Not recommended unless specified risk factors are present
Germany:			
Government[f] (1977)		Screening is suggested in those over 45, frequency not specified	

ABBREVIATIONS: ACS = **American Cancer Society, AGA = American Gastroenterological Association, ASGE = American Society for Gastrointestinal Endoscopy, CTF = Canadian Task Force, NC I . National Cancer Institute, USPSTF = United States Preventiv**

SOURCES:

[a] National Cancer Institute, Division of Cancer Prevention and Control, Early Detection Branch, "Working Guidelines for Early Cancer Detection: Rationale and Supporting Evidence to Decrease Mortality," Bethesda, MD, December 1987.

[b] American Cancer Society, "Summary of Current Guidelines for the Cancer-Related Checkup: Recommendations" (New York: ACS Professional Education Publication), 1868.

[c] Fleischer, D., Goldberg, S., Browning, T., et al., "Detection and Surveillance of Colorectal Cancer," *J. A.M.A.* 261(4):580-585, *1969.*

[d] U.S. *preventive* Services Task Force, *Guide to Clinical* Preventive *Services* (Baltimore, MD: Williams &Wilkins, 1989).

[e] Canadian Task Force on the Periodic Health Examination, "E@ Detection of Colorectal Cancer," accepted for publication in *Can. Med.* ASSOC. *J.* 141 :209-216, 1989.

[f] F.W. Schwartz, H. Holstein, and J.G. Brecht, "Preliminary Report of Fecal Occult Blood Testing in Germany," *Colorectal Cancer: Prevention, Epidemiology, and Screening S.* Winawer, D, Schottenfeld, and P. Sherlock (eds.) (New York, NY: Raven Press, 1980).