

**Table 1 Prevention in the General Population**

Intervention	Target Population	LE Gain (mths)		Source / Comments
		Male	Female	
<b>CARDIOVASCULAR DISEASE</b>				
Exercise consuming 2000 Kcal/week for 30 years	35 year olds	6.2		Hatziandreu et al., 1988
Reduce diastolic blood pressure to 88 mm Hg	35 year olds	13	5	Tsevat et al., 1991 The authors use a simulation model of all Americans turning 35 in 1990.
Reduce cholesterol to 200 mg/dl		8	10	
Reduce weight to ideal		7	5	
Quit smoking		10	8	
Hormone replacement therapy with estrogen only for women who have had a hysterectomy	50 year olds		13	Grady et al., 1992
Hormone replacement therapy with estrogen and progestin for women with intact uteri	50 year olds		6 to 10	Zubialde et al., 1993 The low gains are based on the assumption that adding progestin to estrogen reduces protection against coronary artery disease by 40%. The high gains are based on the assumption that the protection is not changed.
	65 year olds		3 to 6	
One-time screening with exercise electrocardiogram	40 year olds	0.08	0.03	Sox, et al., 1989 An abnormal result is followed by other screening tests. The gain comes from CABG where it is indicated.
	60 year olds	0.41	0.15	
<b>CANCER</b>				
Prostate cancer:				

One-time screen with initial digital rectal examination and PSA test	50 year olds	0.02		Krahn et al., 1994 The authors model four screening strategies which all give very similar LE gains. This strategy is recommended by the American Cancer Society.
	60 year olds	0.04		
	70 year olds	0.06		
<b>Breast cancer:</b>				
10 years of annual screening with breast physical examination	40 year olds		0.4 to 0.9	Eddy, 1989 The low value is based on the Health Insurance Plan (HIP) study and the high value is based on the (uncontrolled) Breast Cancer Detection Demonstration Project (BCDDP). The LE gain for women in a high risk group can be obtained by multiplying by the relative risk.
	55 year olds		0.4 to 0.9	
	65 year olds		0.3 to 0.6	
10 years of annual screening with breast physical examination and mammography	40 year olds		0.7 to 1.8	
	55 year olds		0.7 to 1.7	
	65 year olds		0.5 to 1.2	
10 years of annual, followed by 30 years of biennial, mammography	40 year olds		1.1	Lindfors & Rosenquist, 1995 The authors give LE gains for seven screening strategies. The results are based on the HIP study. The United States Preventive Services Task Force (USPSTF) recommends mammography biennially from age 50.
40 years of annual mammography			1.3	
10 years of biennial mammography	50 year olds		0.8	
<b>Cervical cancer:</b>				
Pap smear every 3 years for 55 years	20 year olds		3.1	Eddy, 1990a Eddy gives LE gains for six screening strategies. The USPSTF recommends screening every three years after two annual negative smears.
Pap smear every year for 55 years			3.2	
<b>Ovarian &amp; Uterine cancer:</b>				
One-time screen with CA 125 and transvaginal sonography	40 year olds		0.01	Schapira et al., 1993
	60 year olds		0.02	

Elective hysterectomy	40 year olds		2.2	Sandberg et al., 1985. The target population is defined as having "gynecologic symptoms". Since very few hysterectomies are performed for indications of malignant disease, we assume that these women are at the general population risk for uterine and ovarian cancer.
	60 year olds		0.7	
Elective hysterectomy with oophorectomy	40 year olds		5.2	
	60 year olds		2.3	
<b>Colorectal cancer:</b>				
Annual fecal occult blood test (FOBT) for 25 years	50 year olds	1.0	1.0	Eddy, 1990b Eddy gives LE gains for eleven screening strategies for both men and women.
Annual FOBT and flexible sigmoidoscopy every 3 to 5 years for 25 years		1.4	1.4	
Annual FOBT and barium enema or colonoscopy every 3 to 5 years for 25 years		2.5 to 2.8	2.2 to 2.5	
<b>INFECTIOUS DISEASES</b>				
Measles vaccine	Infants	0.09		White et al., 1985 We assumed 72 extra years of life for one fatal case of measles averted, 75 extra years of life for one fatal case of rubella averted, and 47 extra years of life for one fatal case of mumps averted.
Rubella vaccine		0.10		
Mumps vaccine		0.01		
Pertussis vaccine	Infants	0.11		Hinman and Koplan, 1984 We assumed 74 extra years of life for one fatal case of pertussis averted.
Hemophilus influenzae Type B (HIB) polysaccharide vaccine	Infants	0.03		Cochi et al., 1985 This protects against bacterial meningitis and other HIB disease. We assumed 74 extra years of life for one fatal case of HIB disease averted.
Hepatitis B virus (HBV) vaccine	Newborns	0.26		Bloom et al., 1993
	Adolescents	0.12		
	Adults	0.03		