Articles

Health Behavior and Experiences of Physicians
Results of a Survey of Palo Alto Medical Clinic Physicians

WALTER M. BORTZ II, MD, *Palo Alto, California*

The results of a health practice questionnaire submitted to the 152 physician members of the Palo Alto Medical Clinic, 126 of whom responded, indicate a generally favorable profile of preventive medicine strategies. Physicians generally smoke less, drink about the same, exercise more, and use their seat belts more than the population at large. They also can expect to live longer. These results are compared with those of other physician surveys and surveys of the general public.

(Bortz WM II: Health behavior and experiences of physicians—Results of a survey of Palo Alto Medical Clinic physicians. West J Med 1992 Jan; 156:50-51)

Health is an inside job. The bulk of human illness is due less to extrinsic factors such as infections, toxins, and trauma than to health decisions. The Surgeon General of the United States estimates that 60% of physician visits, admissions to hospital, and deaths are due to preventable causes. The advice physicians give to patients often reflects their own health beliefs and status. Unfortunately, few studies report the health behaviors of physicians and other health professionals. To this end, a 30-item questionnaire was prepared in general conformance with the health prevention features in *Healthy People 2000.*[1] This was submitted to the 152 physician members of the Palo Alto Medical Clinic (PAMC), a large multispecialty group practice of 122 men (average age 49) and 30 women (average age 41).

Results

Some general health habits of the 126 respondents (83%) are presented in Table 1. In 1987, 29.1% of the American population smoked. In contrast, only 1.6% of the PAMC physicians do; 22% of the present sample had stopped compared with 33% nationally.[1] Most of the PAMC physicians (90%) consumed alcohol, 35% nightly. Wine and beer were the preferred beverages. Almost all wore seat belts regularly and had yearly physical examinations.

In all, 56 (44%) of the PAMC physicians reported being overweight; only 1 (0.8%) considered himself underweight (Table 2). Only five, however, reported themselves to be 15 lb or more overweight, and one was 75 lb too heavy. More than half (54%) were on a low-fat diet, while 39% said they restricted calories. One physician was on a low-gluten diet. Thirteen took supplementary vitamins, and 49 reported that they consciously tried to maintain an adequate calcium intake, either through dairy products or calcium supplementation.

Most of the physicians (93%) exercise regularly. In contrast, 60% of middle-aged Americans surveyed nationally reported a sedentary life-style, and less than 10% exercised aerobically.[2] Jogging, hiking, biking, and swimming were the most common forms of exercise in the PAMC sample. Six had run a marathon in the previous year. A total of 27% (34) reported being in better physical condition than a year before, and 13% considered themselves to be the same.

The average serum cholesterol level of the PAMC physicians was 198 mg per dl (512 mmol per liter) for the men and 160 mg per dl (4.14 mmol per liter) for the women. In 1978 the figure for the clinic physicians was 215 mg per dl (5.56 mmol per liter). In 1980, the general US population had a mean cholesterol level of 213 mg per dl (5.51 mmol per

TABLE 1.—*Basic Health Habits of 126 Physicians at Palo Alto (California) Medical Clinic*

			Indices of Health					
Physicians	*No. (%)*	*Average Age, yr*	*Smoker, No. (%)*	*Ex-smoker, No. (%)*	*Uses Alcohol No. (%)*	*Average Sleep, h/night*	*Wears Seat Belts, No. (%)*	*Yearly Physical Examination, No. (%)*
Men	98 (78)	49.6	2 (2)	25 (26)	89 (91)	7.1	95 (97)	84 (86)
Women	28 (22)	40.6	0 (0)	3 (11)	25 (89)	7.4	28 (100)	19 (68)

TABLE 2.—*Self-reported Nutritional and Exercise Data of 126 Physicians at Palo Alto (California) Medical Clinic*

	Nutrition Status					Exercise Status	
Physicians	*Overweight, No. (%)*	*Underweight, No. (%)*	*Dieting, No. (%)*	*Takes Vitamin Supplement, No. (%)*	*Extra Dietary or Calcium Supplement, No. (%)*	*Exercises Regularly, No. (%)*	*Same or Better Fitness Than Year Before, No. (%)*
Men, n=98	47 (48)	1 (1)	79 (81)	9 (9)	33 (34)	94 (96)	39 (40)
Women, n=28	9 (32)	0 (0)	14 (50)	4 (14)	16 (57)	23 (82)	11 (39)

From the Palo Alto Medical Foundation, Palo Alto, California.
Reprint requests to Walter M. Bortz II, MD, Palo Alto Medical Foundation, 300 Homer Ave, Palo Alto, CA 94301.

TABLE 3.—*Health Habits of Physicians*

Physician Group	Source	Smokes (Ex), %	Alcohol Use (daily), %	Average Sleep, h/night (%)	Exercises Regularly, %	Wears Seat Belts, %	Yearly Physical Exam, %	Overweight, %
PAMC	This study	1.6 (22)	90 (35)	7.3	93	98	81	43
PAMC	1978*	5	95	7.5	95	..	..	..
Harvard	Glanz et al, 1982[8]	<10 (33)	93	..	49	73	54	29
UCLA	Linn et al, 1986[4]	9	89 (9)	..	90	..	..	..
Temple	Glanz et al, 1982[8]	19 (19)	(13)	7-9 (75)	63	..	<25	..
Fresno	Wells et al, 1984[9]	15	(24)	..	73	..	..	59
Harvard	1982[10]†	14	90	..	75	..	..	..
United States	CDC, 1987[2]	29 (32)	..	..	40	24†	..	26

CDC = Centers for Disease Control

*Unpublished data.
†From Harvard Medical School Health Letter, 1982.[10]

liter).[1] The high-density-lipoprotein values of our group were 59 mg per dl (1.52 mmol per liter) for the men and 65 mg per dl (1.68 mmol per liter) for the women.

None of those reporting were currently hypertensive, but eight were under treatment for this condition. Nationally, 30% of the population has hypertension.[1] Of the PAMC physicians, 22 (13 men, 9 women) had been admitted to hospital in the preceding year, 5 for a surgical procedure. Of the 13 men admitted, 5 had orthopedic and 2 had urologic conditions. Of the 9 women admitted, 6 were for obstetric care. The average age of those admitted to hospital was 53 for men and 40 for women. Thus, of the 126 physicians, 13% had a nonobstetric admission during the preceding year. This is slightly higher than the national average.[3]

In all, 36% of the group took some medication in the preceding year: aspirin (14), hypolipidemic agents (10), nonsteroidal anti-inflammatory drugs (6), insulin (3), and β-blockers (4). A number of those taking aspirin were on a drug protocol, so the real incidence is lower.

The PAMC physicians rated their behavior A type on a scale of 0 to 10 as 6.7 for the men and 7.1 for the women as contrasted with our group value of 6.6 twelve years earlier (unpublished data, 1978). The PAMC physicians rated their personal happiness as 7.8 for the men and 8.0 for the women on a scale of 0 to 10. A survey of physicians at the University of California, Los Angeles, reported that their life satisfaction was slightly higher than a national average,[4] whereas 63% of a group of Massachusetts physicians said they were "happy" with their lives.[5]

The male members of the PAMC physician staff estimated that they would live to an average age of 86, the women estimated an average age of 82. All said that they would like to live two years longer than they expected to. In 1978, the group, with an average age of 49.9, expected to live another 31.7 years to 81.6 years. This is 7.7 years more than the national projection.[6(p71)] In 1940 physician mortality was the same as that of white men in the general population,[7] but by 1971, physicians were clearly surviving longer than men in general. The mortality rate of PAMC physicians is too small to be compared with any national average. Clearly this cohort of physicians expects to live longer than would normally be expected. The health behavior characteristics reported in this survey may actually allow that to occur.

Discussion

Table 3 gives a composite summary of seven reports on physician health habits, placed in context with the available national figures. The data are not all comparable and certainly are not simultaneous. The more recent figures from the PAMC with regard to smoking, for example, show a decreased prevalence from just 12 years ago. The other figures cited in Table 3 might reflect similar declines if retested now. By and large, however, it appears that physicians smoke less, drink about the same, exercise more, and use their seat belts more than the population at large. Hospital admission rates for the one-year period assessed were not different for the PAMC physicians from those for the national average.

Physicians' success in altering the health behavior of patients is highly related to their own health behavior.[9-12] Physicians should therefore always seek to serve as exemplars of the health practices that they would like to inculcate in patients, to promote their long-term mental and physical well-being.

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