tation.[1,3] Underreporting of jaw claudication may be a consequence of modern diets that require less mastication effort, particularly in the elderly population. The two cases reported here show that the chewing gum test (i.e., chewing gum at the rate of one chew per second) may be a simple and repeatable test for jaw claudication and allow for a better characterization of this symptom. In our patients, claudication of the jaw appeared after 2 to 3 minutes of chewing and resolved after prednisolone treatment. Further research is warranted to validate the chewing gum test for jaw claudication.

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Disclosure forms provided by the authors are available with the full text of this letter at NEJM.org.

1. Hayreh SS, Podhajsky PA, Raman R, Zimmerman B. Giant cell arteritis: validity and reliability of various diagnostic criteria. J Ophthalmol 1997;123:285-96.
2. Weyand CM, Goronzy JJ. Giant-cell arteritis and polymyalgia rheumatica. N Engl J Med 2014;371:50-7.
3. Kawasaki A, Purvin V. Giant cell arteritis: an updated review. Acta Ophthalmol (Copenh) 2009;87:13-32.

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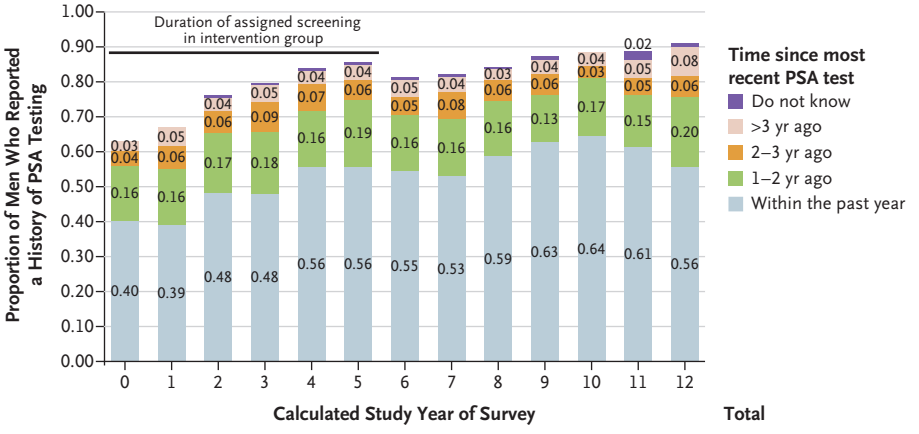
Reevaluating PSA Testing Rates in the PLCO Trial

TO THE EDITOR: In March, the Centers for Medicare and Medicaid Services temporarily suspended the development of a proposed "Non-Recommended Prostate-Specific Antigen (PSA)–Based Screening" measure that would discourage PSA screening in all men. The U.S. Preventive Services Task Force (USPSTF) is currently in the process of updating its recommendations for prostate-cancer screening. The decisions made by these two organizations are likely to determine the fate of PSA screening in the United States.

Much of the controversy surrounding screening revolves around the Prostate, Lung, Colorectal, and Ovarian (PLCO) Cancer Screening Trial, which randomly assigned men to annual prostate-cancer screening or usual care and showed equivalency in the primary outcome of prostate-cancer mortality.[1] The major criticism of this trial relates to the degree of PSA testing in the control group as reported in the 2009 publication of the trial results. Subsequent analyses, including the 2012 USPSTF recommendations, have interpreted the rate cited in the 2009 report as "approximately 50% of men in the control group received at least 1 PSA test during the study."[2]

This is an inaccurate interpretation of PSA testing in the control group during the trial. Rates of testing during the trial were determined by a follow-up survey, termed the Health Status Questionnaire (HSQ), that was administered to a subgroup of participants in the control group.[3] In the HSQ, men were asked whether they had ever undergone a PSA blood test for prostate cancer, along with follow-up questions about when and why the test was performed. Categorical responses for when the most recent test was performed were within the past year, 1 to 2 years ago, 2 to 3 years ago, more than 3 years ago, and do not know, and responses for the main reason for the test were because of a specific prostate problem, follow-up to a previous health problem, and part of a routine physical examination. In the landmark 2009 trial report, the rate of testing in the control group was limited to men who responded that they had been tested within the previous year as part of a routine physical examination, and other responses were not counted as testing.[3]

As seen in Figure 1, more than 80% of the participants in the control group without baseline screening contamination (which for PSA was defined as ≥2 tests within 3 years before trial entry) reported having undergone at least 1 PSA test during the trial, with more than 50% undergoing testing within the past year and 70% within the past 2 years. Overall, including the 10% of control participants with baseline PSA screening contamination, the proportion of control participants who reported having undergone at least 1 PSA test before or during the trial was close to 90%. Moreover, the pervasiveness of PSA testing was such that when both trial groups were surveyed with the HSQ, men in the control group reported having had more cumulative PSA testing than men in the intervention group (see the Supplementary Appendix, available with the full text of this letter at NEJM.org). These clarifications should be considered by policymakers and



	0	1	2	3	4	5	6	7	8	9	10	11	12	Total
Unknown if tested (no.)	14	38	35	46	41	33	24	17	19	15	13	16	7	318
Not tested (no.)	68	144	96	88	71	60	54	47	40	35	25	24	9	761
Tested (no.)	116	292	309	346	370	354	235	217	212	242	189	188	90	3160
Proportion tested														
Main analysis	0.63	0.67	0.76	0.80	0.84	0.86	0.81	0.82	0.84	0.87	0.88	0.89	0.91	0.81
Sensitivity analysis	0.59	0.62	0.70	0.72	0.77	0.79	0.75	0.77	0.78	0.83	0.83	0.82	0.85	0.75

Figure 1. Prostate-Specific Antigen (PSA) Testing in Participants without Baseline Screening Contamination in the Control Group of the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial.

The Health Status Questionnaire was administered to a random sample, with replacement, of control participants without baseline screening contamination, which for PSA was defined as two or more tests within 3 years before trial entry. Surveys were conducted 10 times between 1997 and 2010, with an estimated 95% response rate. The study year of the survey was calculated relative to the date of trial entry; time categories shown are those used in the questionnaire. Analysis includes testing for any reason, and participants who received a diagnosis of prostate cancer were included as tested. The number of men is the number surveyed per trial year. The main analysis included men who knew whether they had been tested (tested or not tested). In the sensitivity analysis, men who did not know whether they had been tested were counted as not tested.

payers debating reimbursement and meaningful use of PSA testing, particularly given the mounting evidence that intermittent PSA testing decreases the costs and harms of screening while preserving the benefits of annual testing.[4]

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1. Andriole GL, Crawford ED, Grubb RL III, et al. Mortality results from a randomized prostate-cancer screening trial. N Engl J Med 2009;360:1310-9.
2. Moyer VA. Screening for prostate cancer: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med 2012;157:120-34.
3. Pinsky PF, Blacka A, Kramer BS, Miller A, Prorok PC, Berg C. Assessing contamination and compliance in the prostate component of the Prostate, Lung, Colorectal, and Ovarian (PLCO) Cancer Screening Trial. Clin Trials 2010;7:303-11.
4. Carter HB, Albertsen PC, Barry MJ, et al. Early detection of prostate cancer: AUA guideline. J Urol 2013;190:419-26.

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