Prevention

Cervical Cancer Awareness Month January 2022

CERVICAL CANCER SCREENING AND PREVENTION

Note to Readers: Fear of COVID exposure sharply reduced medical visits and preventive care in 2020. We have added information about cancer prevention during the pandemic.

Summary: Temporary interruptions in primary care may depress long-term screening, based on the experience with natural disasters in Puerto Rico. Unvaccinated women are also less likely to be screened. For lower income women, out-of-pocket costs are obstacles to screening. Trans and non-binary patients assigned female at birth often feel uninformed about cervical cancer screening and prefer other approaches. HVP vaccination of men and women over 30 not cost effective; vaccination of women before age 17 highly effective

Cervical Cancer Prevention During COVID Screening, natural disasters and COVID in Puerto Rico: Cervical cancer screening declined between 2016 and 2020 in Puerto Rico, beset by severe hurricanes (Irma and Maria) in 2017 and earthquakes 2019-20 before COVID. Screening recovered but incompletely in 2018 and February 2020. Puerto Rico's fragile medical infrastructure likely contributed, but COVID disruptions may persist after in-person primary care returns.¹

CERVICAL CANCER SCREENING

HPV unvaccinated women screened less: The 2019 National Health Interview Study found that women **eligible for HPV vaccination but not vaccinated** were much more likely to be **not screened or not up to date** for cervical cancer screening. While screening rates were higher for women in their 30's vs. in their 20's, unvaccinated women remained less screened. Compared to vaccinated women, unvaccinated women in their 20's were more often unscreened (32% vs 18%) and not up to date (37% to 22%). For women in their 30's, the differences were 14% vs 5% and 20% vs 9%, respectively. Perceived costs barrier to cervical cancer **screening**: Among 702 low-income, uninsured or publicly insured women not up to date on cervical cancer screening, 72% cited out-of-pocket costs as barriers. Costs of the screening appointment (71%) and follow-up medical costs (46%) were the most common fears. Estimates of out-of-pocket costs ranged from \$0–\$1300, with median of \$245. Cervical cancer screening for trans and non-binary men: In a study of transexual (80%) and nonbinary (18%) men assigned female sex at birth, over half of cervical cancer screening-eligible patients had been screened. Half felt they had sufficient information about screening, opposed automatic invitation to screening and wanted a self-swab option for HPV.

CERVICAL CANCER PREVENTION (VACCINATION)

Policies should focus on vaccinating younger men and women, not extending the vaccine to older ones. HPV vaccination for women 30-45 not cost-effective: Although the HPV vaccine is licensed for men and women up to age 45, it has not been recommended for women over 26 or men over 21. Cost effectiveness models found that extending the vaccine to older men and women was not cost effective. Even including all HPV-related cancers, the model estimated \$315,700 to \$440,600 per quality-adjusted life-year (QALY) gained. Even with the most extremely favorable assumptions, the cost per QALY was greater than \$200,000. Women vaccinated before age 17 had 88% risk protection against cervical cancer compared to 49% for women vaccinated at age 17-30. The risk of cervical cancer by age 30 was 97 per 100,000 for unvaccinated women and 54 per 100,000 for women vaccinated age 17-30, compared to 4 per 100,000 by age 28 for women vaccinated before age 17.

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REFERENCES

- 1. Ortiz AP, Gierbolini-Bermudez A, Ramos-Cartagena JM, Colon-Lopez V, Sonawane K, Deshmukh AA, et al. Cervical cancer screening among medicaid patients during natural disasters and the COVID-19 pandemic in Puerto Rico, 2016 to 2020. JAMA Netw Open 2021;4:e2128806.

 2. Sonawane K, Suk R, Chiao EY, Schmeler KM, Montealegre J, Fernandez ME, et al. Evaluation of cervical cancer screening uptake and
- adherence among women without human papillomavirus vaccination in the US. JAMA Netw Open 2021;4:e2131129.
- 3. Biddell CB, Spees LP, Smith JS, Brewer NT, Des Marais AC, Sanusi BO, et al. Perceived financial barriers to cervical cancer screening and associated cost burden among low-income, under-screened women. J Womens Health (Larchmt) 2021;30:1243-52.
- 4. Berner A, Connolly D, Pinnell I, Wolton A, MacNaughton A, Challen C, et al. Attitudes of trans men and non-binary people to UK cervical screening. Br J Gen Pract 2021;71:e614-e25.
- 5. Kim JJ, Simms KT, Killen J, Smith MA, Burger EA, Sy S, et al. Human papillomavirus vaccination for adults aged 30 to 45 years in the United States: A cost-effectiveness analysis. PLoS Med 2021;18:e1003534.
- 6. Lei J, Ploner A, Elfstrom KM, Wang J, Roth A, Fang F, et al. HPV vaccination and the risk of invasive cervical cancer. N Engl J Med 2020;383:1340-8.

The Strang Cancer Prevention Cookbook

Roasted Eggplant Dip

Reduce Your Risk for Cancer by Eating a Healthy Diet!

8 Servings

- 1 medium eggplant (about 1 1/4 pounds) halved lengthwise
- 1 tablespoon olive oil
- 2 garlic cloves peeled
- 1 medium potato (about 6 ounces), baked or microwaved and peeled
- ½ cup 1% cottage cheese or 2 ounces lite silken tofu
- 2 tablespoons tahini (toasted sesame paste)
- 1 teaspoon lemon juice
- 1 teaspoon cayenne pepper
- 2 teaspoons toasted sesame oil

salt



Preheat the oven to 350 degrees F

Brush the flesh of the halved eggplant with 1 teaspoon of the olive oil. Place on a non stick baking pan, cut side down, and roast for 20 to 30 minutes. Remove from the oven and let cool. Scoop the pulp from the skin of the eggplant and place in the bowl of a food processor. Add the roasted garlic and potato and puree. Then add the cottage cheese, tahini, lemon juice, and cayenne and puree again until smooth. With the motor running, drizzle in the sesame oil and remaining 2 teaspoons olive oil. Season to taste with salt and transfer to an attractive serving bowl.

Calories 110, protein 4g, carbs 15g, fat 4g, cholesterol 1mg, dietary fiber 2g, saturated fat 1g

MAJOR SOURCES OF POTENTIAL CANCER FIGHTERS

Phytochemicals: allium compounds, plant polyphenols, (flavonoids, phenolic acids), phytic acids, plant sterols, terpenes (monoterpenes)

Laura Pensiero, R.D., **Strang** Nutrition Consultant Chef, Dietitian, Restaurateur, Author Owner Gigi Hudson Valley, Trattoria & Catering, Rhinebeck, New York



January is Cervical Cancer Awareness Month



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