

Educating About Cervical Cancer Screening Amid the Pandemic

California Primary Care Association Webinar


April 29, 2021

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Department of Obstetrics and Gynecology

UCI Health

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Moderator

Heike Thiel de Bocanegra, PhD, MPH is Associate Professor and Director, Health Service Research at the University of California, Irvine, Department of Obstetrics and Gynecology. She was co-investigator of a clinic trial funded by the Patient Centered Outcomes Research Institute (PCORI) that developed and tested the effectiveness of the online *cervical cancer prevention patient education tool "Decreasing Overtesting but On time (DOTS-O)." She is currently the PI of the PCORI award to disseminate the DOTS-O tool to community stakeholders and providers. The DOTS-O tool is also used in her PCORI engagement award "California's Refugee Reproductive Health Network (ReproNet)" in virtual groups with Dari, Pashto and Arab-speaking refugees.*

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Anna-Barbara Moscicki, MD

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Cervical Cancer Screening Guidelines:

Dr. Moscicki is a Pediatrician, Board Certified in Adolescent Medicine. She is the current Division Chief of Adolescent and Young Adult Medicine with clinical expertise in reproductive health care for menstrual irregularities, sexual health, and sexually transmitted diseases; and a 35-year research career has focused on STD epidemiology. She has long worked in studying HPV among youth living with HIV. Her work has been translated to public health policies guiding ages to vaccinate with HPV, screening for cervical cancer, and management of abnormal cytology and histology.

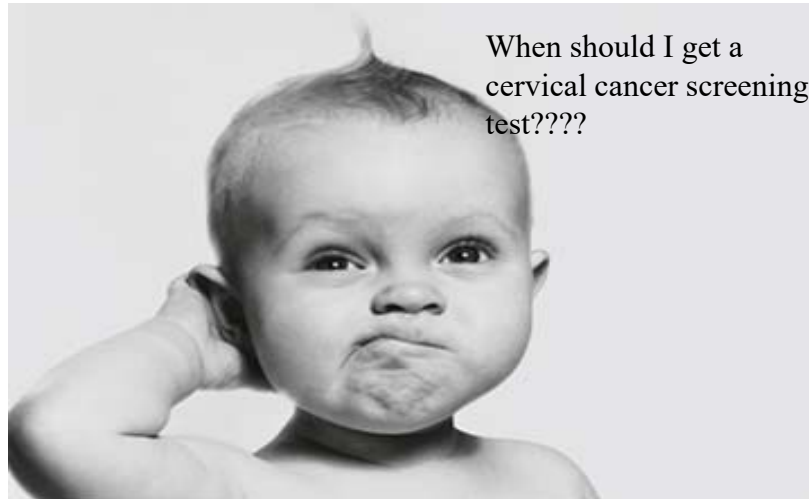
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Updates: Cervical Cancer Screening

Anna-Barbara Moscicki, MD
Professor of Pediatrics, UCLA

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Cervical cancer screening: It should be so simple....but its not..



Anna-Barbara Moscicki
Chief, Adolescent and Young Adult Medicine, UCLA

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History of CC screening

- 1900; screen nobody
- 1920's Pap smear was developed
- 1940's Pap smear became a recognized "test"
- 1950's introduction of mass screening ; age and intervals not specified: done with regular check up
- 1980-2002 screen with Pap smear within 1st year of SA;
- annual or every 2 yrs if liquid cytology or cotesting
- 2003-2011: start screening within 3 years of SA: annual if Pap; every 2 yrs if liquid cytology or cotesting (HPV plus cytology) every 3 years for 30+ yrs
- 2012: ACS recommended no earlier than 21 years ; cytology ONLY for 21-29
- 2012: cotesting every 5 years for 30+ years
- 2018: primary HPV testing was added as a choice for 30+

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Cervical cancer screening guidelines

	Recommendation	Age to screen (yrs)	Alternative
USPTF ² / ACOG/ASCCP 2018	Cytology q 3 yrs	21-29	
	Cytology q 3 yrs OR Co-testing q 5 yrs OR Primary HPV* q 5yrs	30--65	

*must be FDA approved test: Roche Cobas & BD Onclarity

**Alternative only if primary HPV limited access

¹Fontham et al CA: A Journal for Clinicians 2020 ²USPTF 2018

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Cervical cancer screening guidelines

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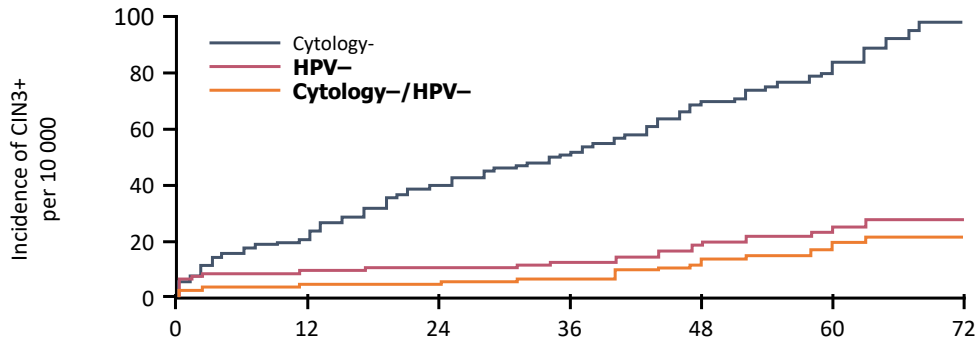
*must be FDA approved test: Roche Cobas & BD Onclarity

**Alternative only if primary HPV limited access

¹American Cancer Society: Fontham et al CA: A Journal for Clinicians 2020 ²US Preventive Task Force guidelines 2018

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HPV alone vs HPV with cytology has similar “negative” screening performances



- 24,295 women from 7 primary HPV screening studies in 6 European countries
- Adding cytology to an HPV test (cotesting) added little further protection

Dillner, et al. *BMJ*, 2008;337;a1754.

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Comparisons of Strategies in Women ≥ 30 Y-ATHENA Study Performance measures for detecting CIN 3+ over 3 y*³⁰

Strategy	Sensitivity	Specificity	PPV	NPV
Cytology	40.3 (34.6-46)	97.9 (97.7-98)	23.9 (21.0-26.8)	99.0 (98.8-99.2)
Cotesting	63.4 (56.7-70.1)	95.1 (94.8-95.3)	17.8 (15.8-19.8)	99.4 (99.2-99.5)
Primary HPV	64.8 (58.4-71.1)	95.2 (95-95.5)	18.5 (16.4-20.6)	99.4 (99.2-99.5)

*Verification adjusted over the entire 3 y

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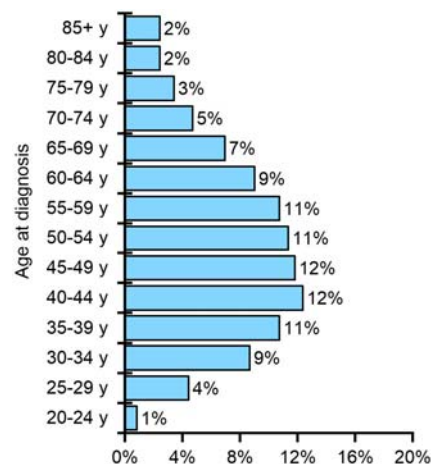
Why not screen 21-24 year olds?

Arguments for not screening:

- Lots of abnormal tests
- Lots of unnecessary colposcopies (low rates of CIN 3)
- Little to no cancers
- National Vaccination rates have reached >50% so CIN 3 is expected to drop
- Cytology performs worse in vaccinated women (results in unnecessary referrals)
- Heard effects substantial
- Cost effective

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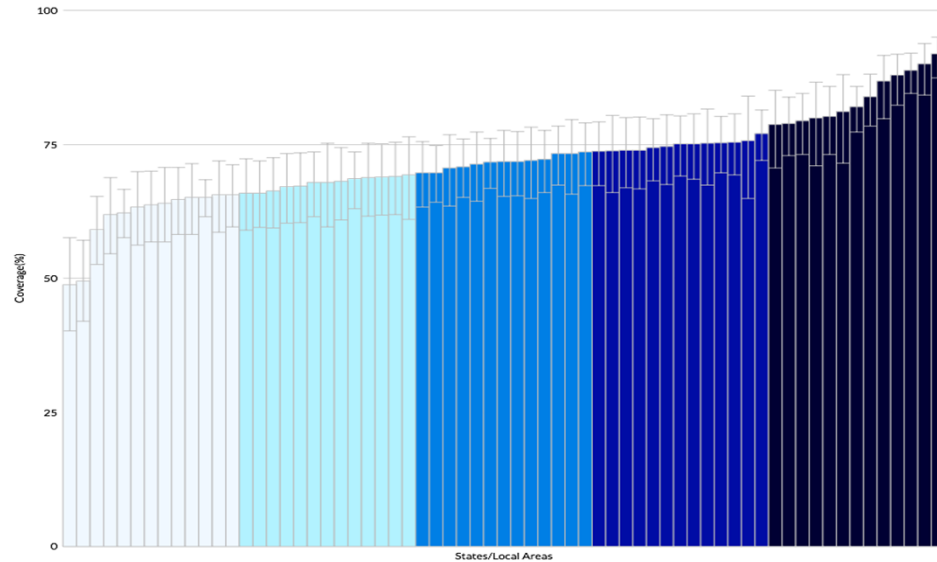
Percent of Cervical Cancer Cases by Age (ACS)



Fonthan et al Ca: A Cancer Journal for Clinicians; 2020

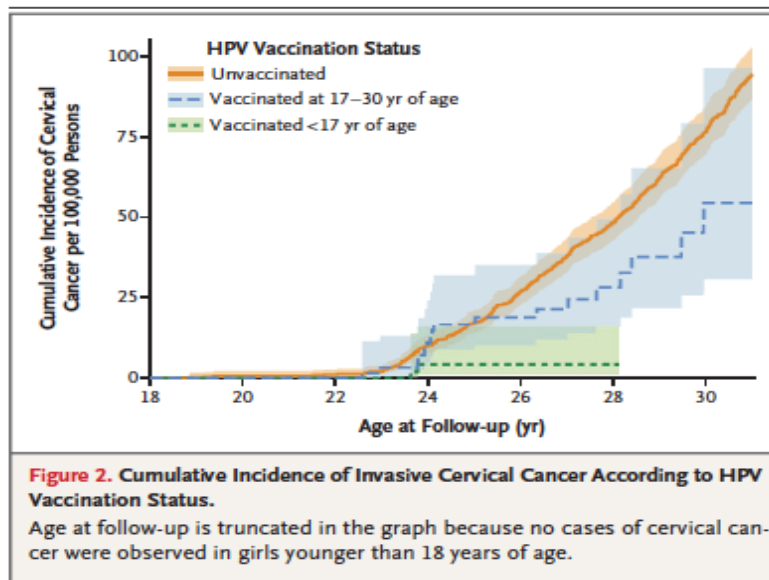
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HPV Coverage by State: at least one dose among boys and girls aged 13-17 yrs (CDC) 2019



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Cervical Cancer Rates in Sweden by HPV vaccine status



Lei, J et al NEJM 2020; 383,

14

Arguments for screening 21-24 years

- CIN 3 peaks in women aged 25-29 years
- I don't have access to primary HPV
- Cytology is not sensitive enough to start screening women who are at high risk of CIN 3 if all i have is cytology
- My population is not HPV vaccinated
- My population is very transient and trying to get someone in at age 25 years is not always possible

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CHOICES for Cervical cancer screening guidelines

	Recommendation	Age to screen (yrs)	Alternative
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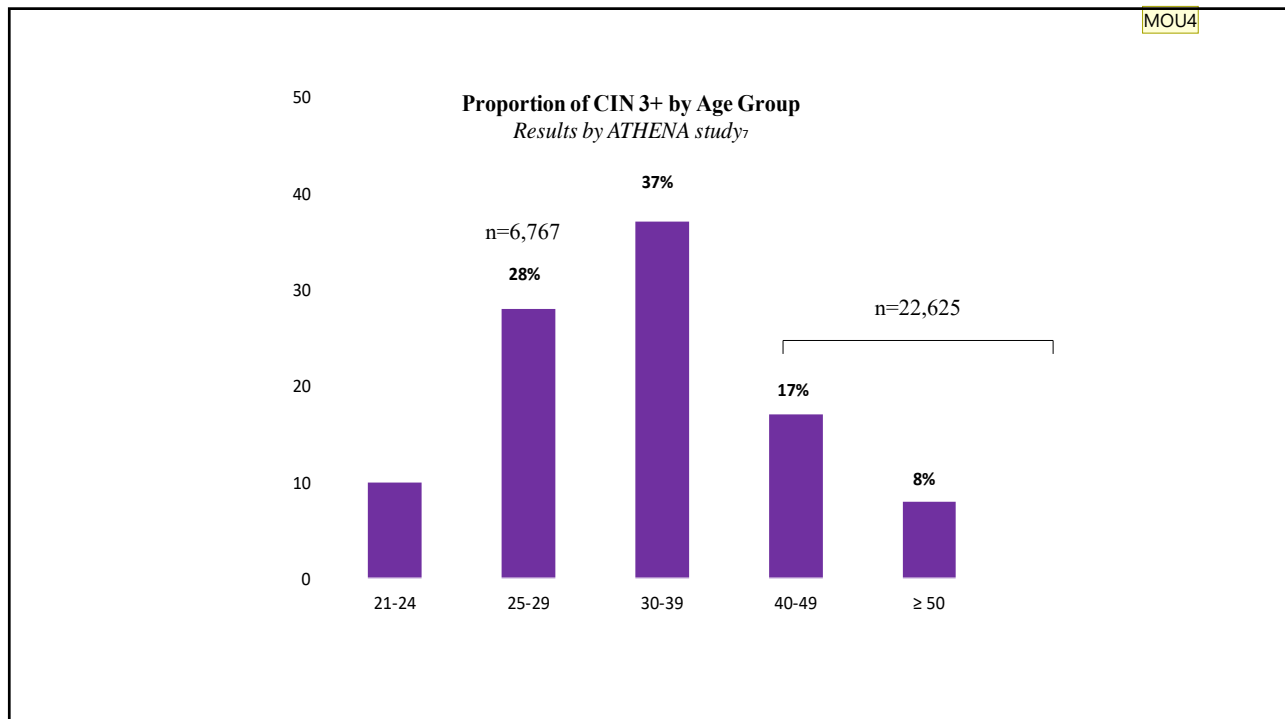
**Alternative only if primary HPV limited access

¹Fontham et al CA: A Journal for Clinicians 2020 ²USPTF 2018

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HPV primary screening in 25-29 year olds?

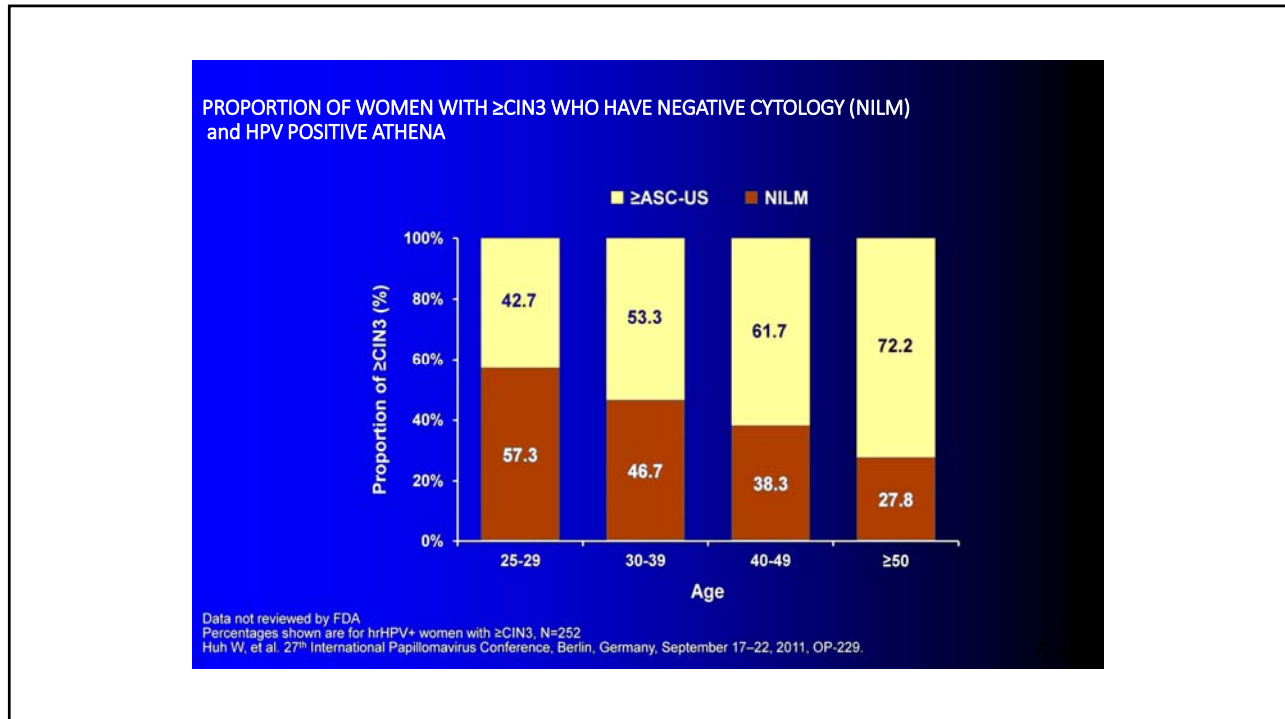
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Microsoft Office User, 5/15/2018



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What's the downside with primary HPV testing?

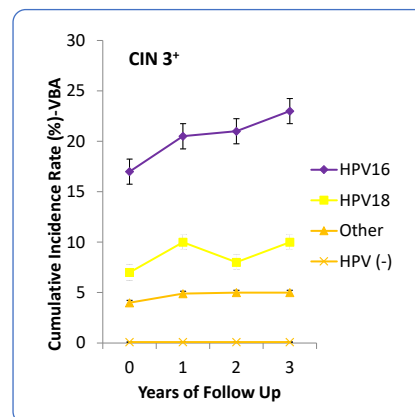
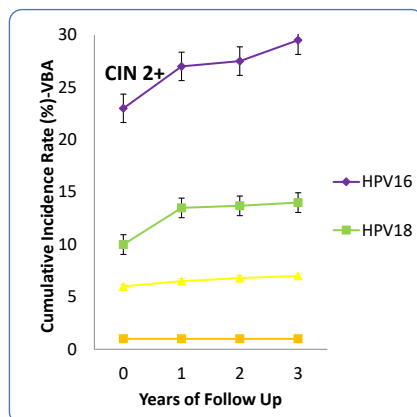
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What's the downside with primary HPV testing?

- Lousy PPV: around 15%.....
- Triage test is necessary

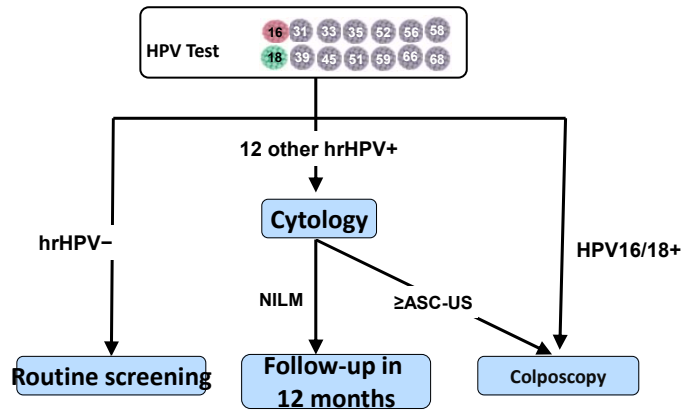
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Rate of Clearance \neq Predictor of Progression: Predictive Value of HPV Genotyping 3-y risk of CIN for all women \geq 25 y, ATHENA study



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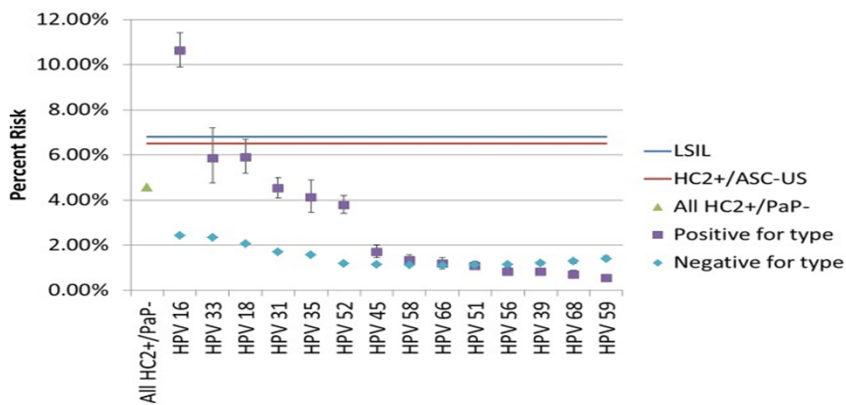
Implications for control is HPV genotype triage: hrHPV Primary Screening Algorithm



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HPV Genotyping-Based Triage

3 Year Cumulative Risk of CIN3+



→ HPV 16, 33, 18, 31, 35, 52

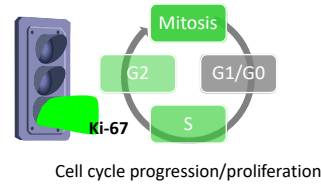
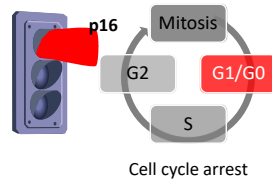
Schiffman et al, J Clin Microbiol, 2015

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Cell cycle deregulation is key to CIN 3 development

p16/Ki-67 Dual-Stained Cytology

Detecting the Molecular Driver Event

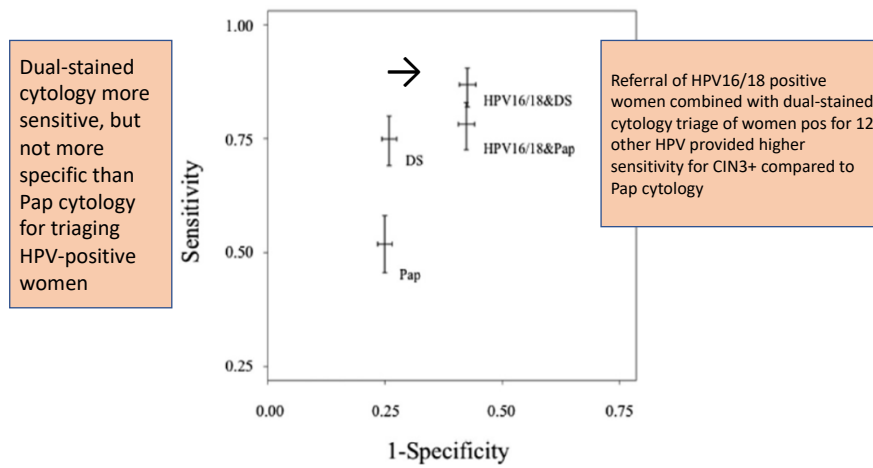


Co-expression of p16 & Ki-67:

- Indicates cell cycle de-regulation
- Hallmark of transforming HPV infections

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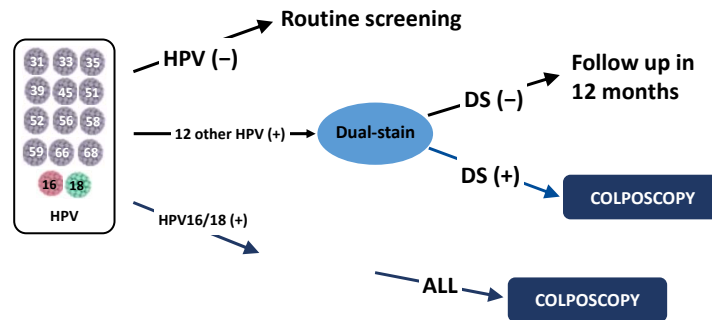
Triaging HPV-positive women with p16/Ki-67 dual-stained cytology: Results from a sub-study nested into the ATHENA trial



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Implication for control: Triage of HPV (+) Women

Use of Dual-Staining for Risk Stratification



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Does past history of abnormal tests make a difference in a screening test today? (ie prevalent vs incident infection)

Dear Doctor, my previous screening was negative (ie HPV negative) but my test is positive now. What does that mean?

Discussion Points with patients:

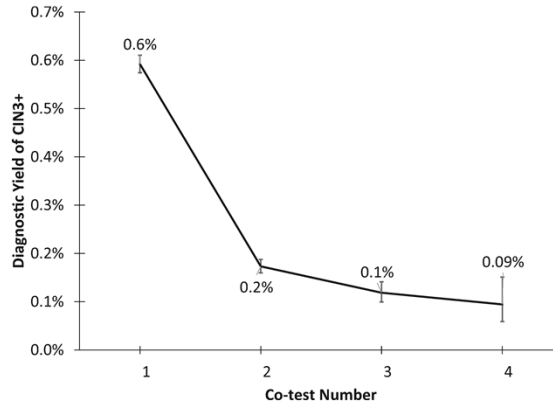
What is my risk for cancer?

Is my partner having an affair?

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Implications for control: New infection? Reactivation? Doesn't matter the clock starts over again.....

Diagnostic yield of CIN3+ by round of Co-test screening. Five-year cumulative detection (risk) of CIN 3+ following 0-3 negative results; irrespective of test result

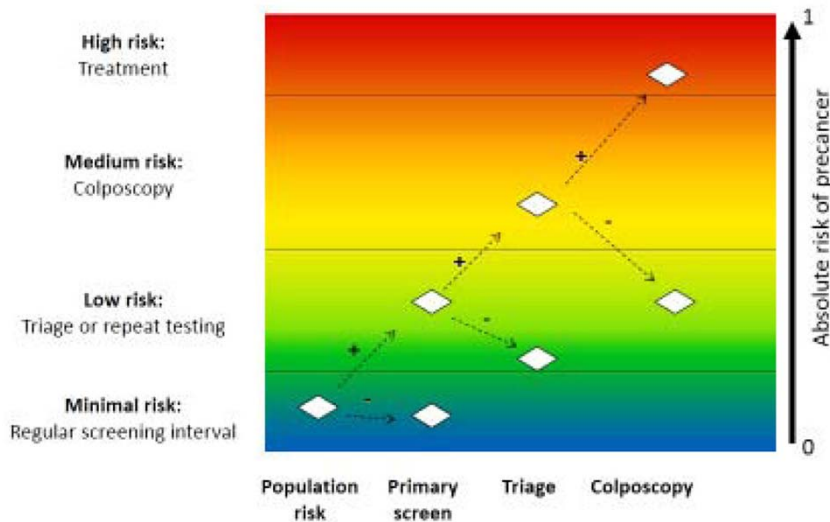


JNCI: Journal of the National Cancer Institute, 21 December 2018, djy192, <https://doi.org/10.1093/jnci/djy192>
The content of this slide may be subject to copyright; please see the slide notes for details.

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ASCCP 2019 Risk Based Management for abnormal Cervical Cancer Screening test



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Implication for control: known incident HPV infection reduce the risk of CIN 3 (KPNC) but not for cytology

HPV	Pap	Immediate risk (%) after prior	
		HPV neg	HPV test
Pos	HSIL+	32.28	48.86
Pos	ASC-H	13.56	25.73
Neg	HSIL+	13.80	25.21
Pos	LSIL	2.10	4.27
Pos	ASC-US	2.03	4.45
Pos	NILM	0.74	2.13
Neg	LSIL	0.44	1.05
Neg	ASC-US	0.014	0.04
Neg	NILM	0.001	0.002

LSIL/ASCUS
no longer
meets
colpo-
scopy
threshold


Assuming a risk of 4% for CIN3 is the threshold

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Summary

- New ACS guidelines: primary HPV testing with triage test (cytology, genotyping, dual staining) starting at age 25
- USPTF recommends starting at age 21 with cytology
- New triage test: Ki67/p16 dual staining for + HPV test
- Past history of HPV test result influences risk management

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Ysabel Duron, PhD
The Latina Cancer Institute, California
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Cancer Screening in the Latina Community:

Ms. Duron founded The Latino Cancer Institute (TLCI), to enhance the work of Latino community service agencies, to provide collaboration with the global cancer research community, and drive policy to address the issues and diminish the burden of Latino cancer. Duron helps advise the Governor on Precision medicine policies, grant funding proposals and more specifically, strategies to include racial/ethnic communities in precision medicine research and care. She has driven a motion that required research proposals to include a plan on recruiting a proportionate number of racial and ethnic minorities into Clinical Trials for the first time in CIRM's 16-year history.

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Cancer Screening In the Latina Community

April 29, 2021



THE LATINO CANCER INSTITUTE
Connect. Convene. Advocate.

Ysabel Duron
Founder/Executive Director
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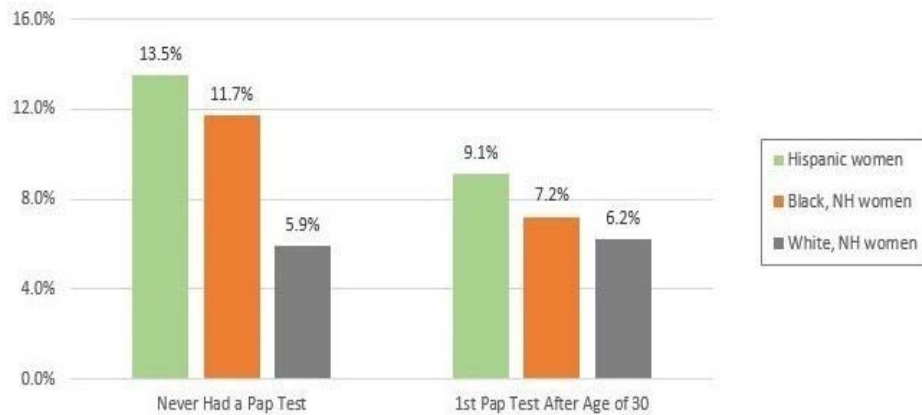
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Latina Cervical Cancer Facts

Hispanic women are 40 percent more likely to be diagnosed with cervical cancer, and 20 percent more likely to die from cervical cancer, as compared to non-Hispanic white women.

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Disparities in Pap Testing



National Alliance for Hispanic Health (the Alliance), the nation's leading Hispanic health advocacy group, Jan 27, 2021

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QUICK FAQS - INCIDENCE, DEATH, SCREENING AND HPV VACCINE

	LATINAS	NON-HISPANIC WHITES
INCIDENCE	9.3%	7.3%
DEATHS (per 100,000)	2.6%	2.1%
SCREENING (2015)	79%	85%
	Mexican 78%	
	Cubans 84%	
	Uninsured Latinas 67%	Uninsured Whites 61%
HPV VACCINATIONS (13-17)	LATINO ADOLESCENT GIRLS/BOYS	NON-HISPANIC WHITE ADOLESCENT GIRL/BOYS
	72%/60%	68%/50%

Centers for Disease Control/ ACS for 2018

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Persistent Barriers to Care

- Discrimination
- Lack of Culturally and Linguistically Competent Health Care Systems
- Cuts to Federal Safety Net Programs



National Latina Institute for Reproductive Health
 CERVICAL CANCER & LATINXS*: THE FIGHT FOR PREVENTION & HEALTH EQUITY, JAN 2017

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COMMUNITY HEALTH WORKERS

- *Raise Awareness
- *Diminish Fear, Myth and Misinformation
- *Remove Barriers to Screening
- *Navigate through Screening, Diagnosis and Care

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Community Health Workers on the Job



- Assisting with registration paperwork to capture family cancer and screening history
- Educating virtually via Facebook about Hereditary Breast Cancer and navigating into genetic testing
- Teaching a Spanish language cervical education class in schools, agencies, churches

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Salinas, Monterey County, California - CHW's, COVID and Cancer Screening

COVID food lines - passing
out screening information



Visiting farmworker families
to discover needs



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Understanding Cervical Cancer Prevention Entendiendo Cáncer del Cuello Uterino

Let's talk about Pap Smears

Hablemos acerca del Papanicolau

NOTES: The development of this patient education tool was funded through a Patient-Centered Outcomes Research Institute (PCORI) award. A national screening tool for cervical cancer was developed by researchers at the University of California at Los Angeles and Irvine (UCLA and UC Irvine) with the support of community stakeholders including Latinas Contra Cáncer, National Cervical Cancer Coalition, and ASCCP.

Views, statements, opinions presented in this web-based tool are solely the responsibility of the author(s) and do not necessarily reflect those of the National Cervical Cancer Coalition.

NATIONAL CERVICAL CANCER COALITION - <https://www.nccc-online.org/>

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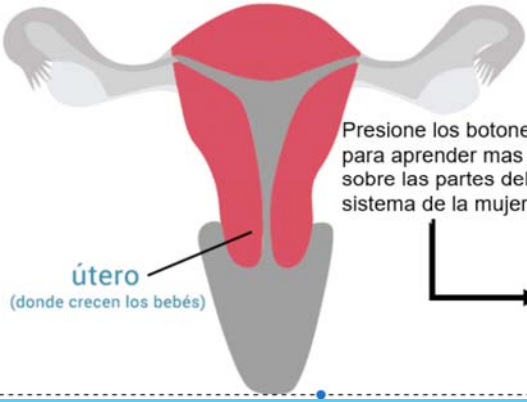
Vamos a observar todas las partes del sistema reproductivo femenino

← atrás

Presione este botón cuando quiera regresar a la pantalla anterior

siguiente ▶

Presione este botón cuando quiera regresar a la pantalla anterior



Presione los botones para aprender mas sobre las partes del sistema de la mujer.

útero
(donde crecen los bebés)

- el útero?
- las trompas de falopio?
- los ovarios?
- la vagina?
- el cuello uterino?

This program can be done individually in the clinic, or even better, in a group with starts and stops navigated by a CHW to allow time to answer questions and address uncertainties

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SOURCES

National Cervical Cancer Coalition
<https://www.nccc-online.org/>


National Alliance for Hispanic Health
<https://www.healthyamericas.org/Survey>
<https://www.prnewswire.com/news-releases/national-survey-finds-lag-in-cervical-cancer-screening-and-information-for-hispanic-and-black-women-301216792.html>

Science Direct
<https://www.sciencedirect.com/science/article/abs/pii/S0091743520302668?via%3Dihub>
Examining aspects of successful community-based programs promoting cancer screening uptake to reduce cancer health disparity: A systematic review

National Latina Institute of Reproductive Health
latinainstitute.org

Thank You
Ysabel Duron
yduro@latinocancerinstitute.org

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Francesca M. Gany, MD MS
 Immigrant Health and Cancer Disparities Service,
 Memorial Sloan Kettering Cancer Center, New York, NY
ganyf@mskcc.org

Cancer Screening Among Arab-American Immigrants:

Dr. Gany works to bridge immigrants, minority community members, and the medically underserved with the healthcare system, and to eliminate health disparities. Her groundbreaking work has led to improvements in health outcomes and to the development of long-term clinical, health policy, and programmatic changes. Prior to this, Dr. Gany has been the principal investigator on pioneering immigrant health studies in cancer, language access and cultural competence, technology and immigrant health, healthcare access, and cardiovascular disease.

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Cervical Cancer Knowledge, Attitudes, and Beliefs of Arab American Women in NYC


Francesca Gany, M.D., M.S.

Claudia Ayash, M.P.H.

Noor Raad, M.S.

Redwane Gatarny

Immigrant Health & Cancer Disparities
Towards Equity in Health



Memorial Sloan Kettering Cancer Center.

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Background

- Cervical cancer rates high in countries of origin
- Lower uptake of cervical cancer screening among unmarried Arab Americans
- Little is known about Arab Americans' cervical cancer and HPV vaccine health behaviors and beliefs

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Study Objectives

- Determine in Arab immigrant women: knowledge, attitudes, and beliefs around cervical cancer screening and HPV vaccination
- Arab American preliminary feedback on the DOTS-O tool

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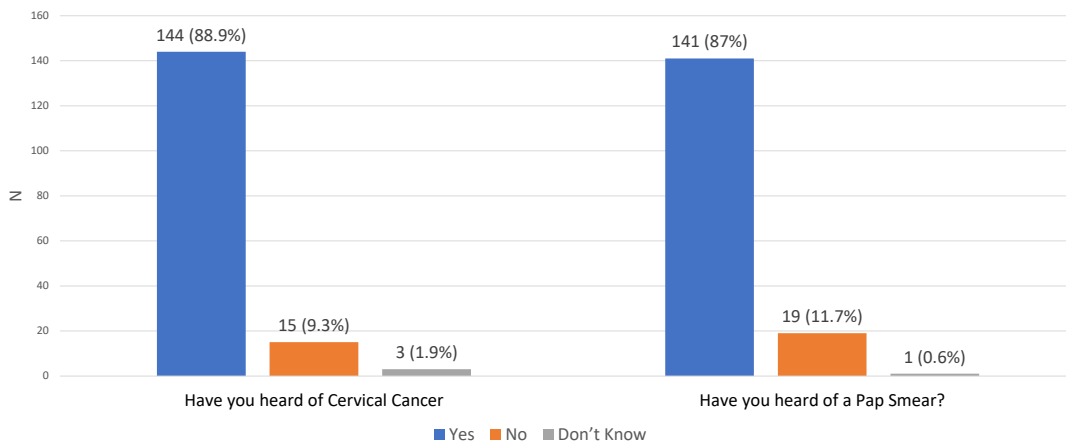
Participant Socio-demographics

Characteristic		N= 162 (%)
Female		162 (100)
Country of Origin	Yemen	40 (24.7)
	Egypt	38 (23.5)
	Lebanon	15 (9.3)
	Morocco	15 (9.3)
	Syria	13 (8.0)
	Other	41 (25.3)
Religion	Muslim	104 (64)
	Christian	58 (35.8)
Preferred Language	Arabic	107(66)
	English	55 (34)
Limited English Proficiency		80 (49.3)
Insured		152 (93.8)
Education	≤2 nd grade	14 (8.6)
	3rd to 5th grade	13 (8.0)
	6th to 8th grade	21 (12.9)
	some HS/ graduate	34 (20.9)
	Some college/ graduate	52 (32.1)
	Post college	28 (17.3)
Never Worked in the U.S.		90 (55.6)



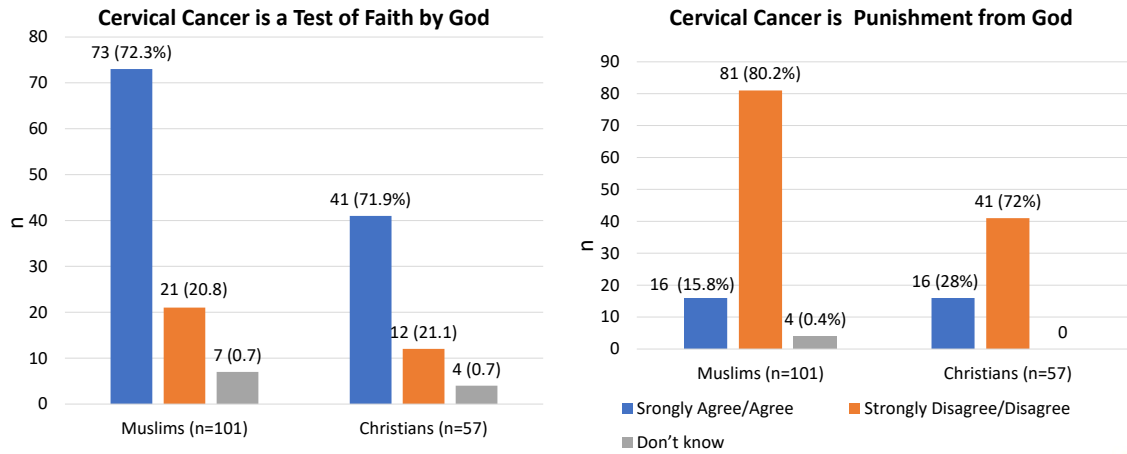
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Cervical Cancer: Knowledge



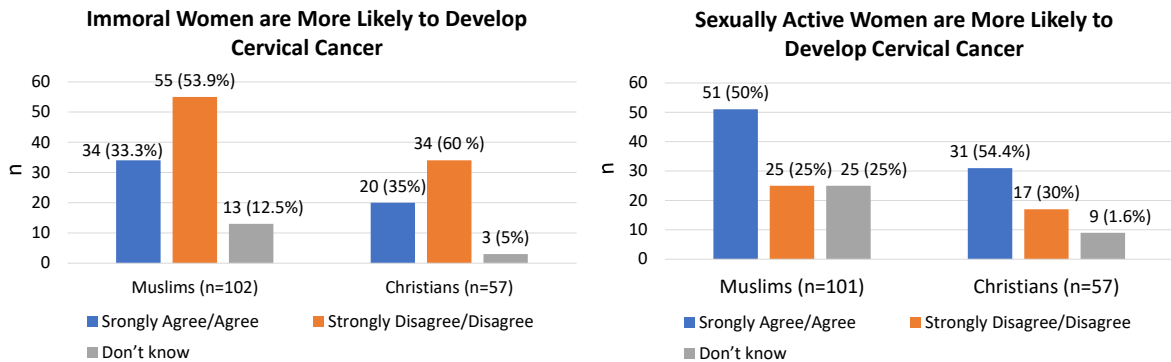
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Cervical Cancer: Religious Beliefs

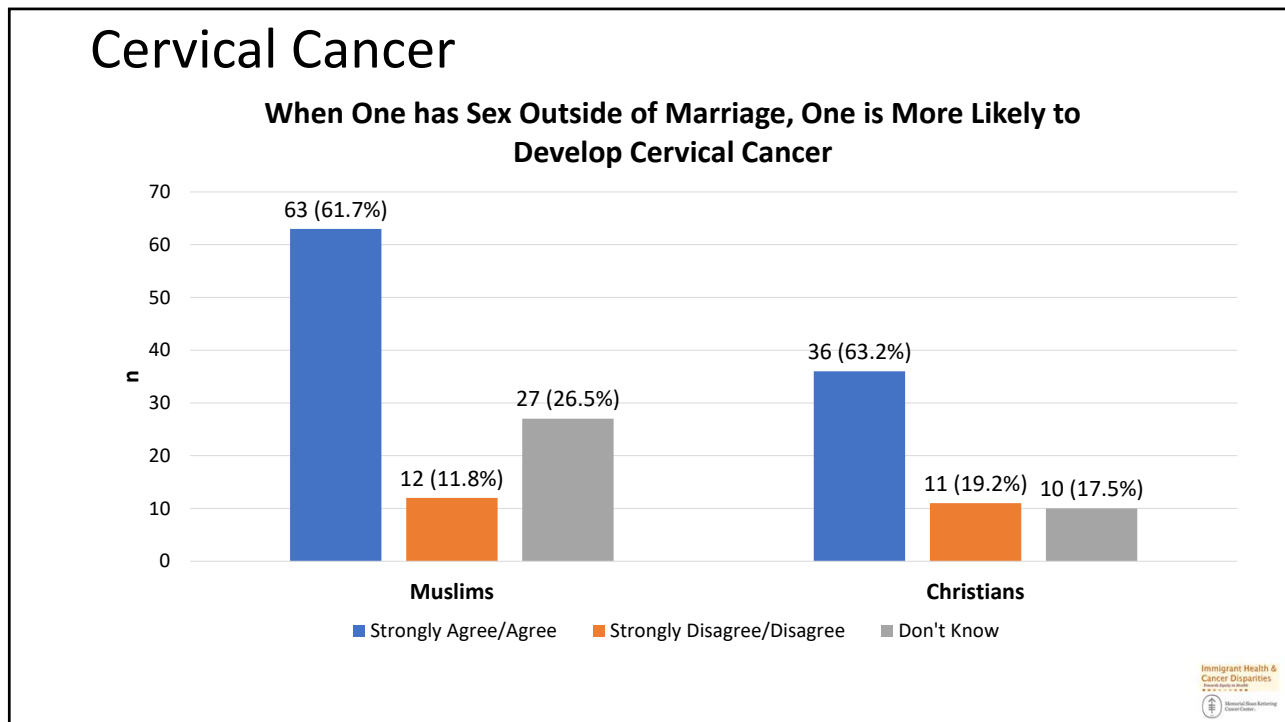


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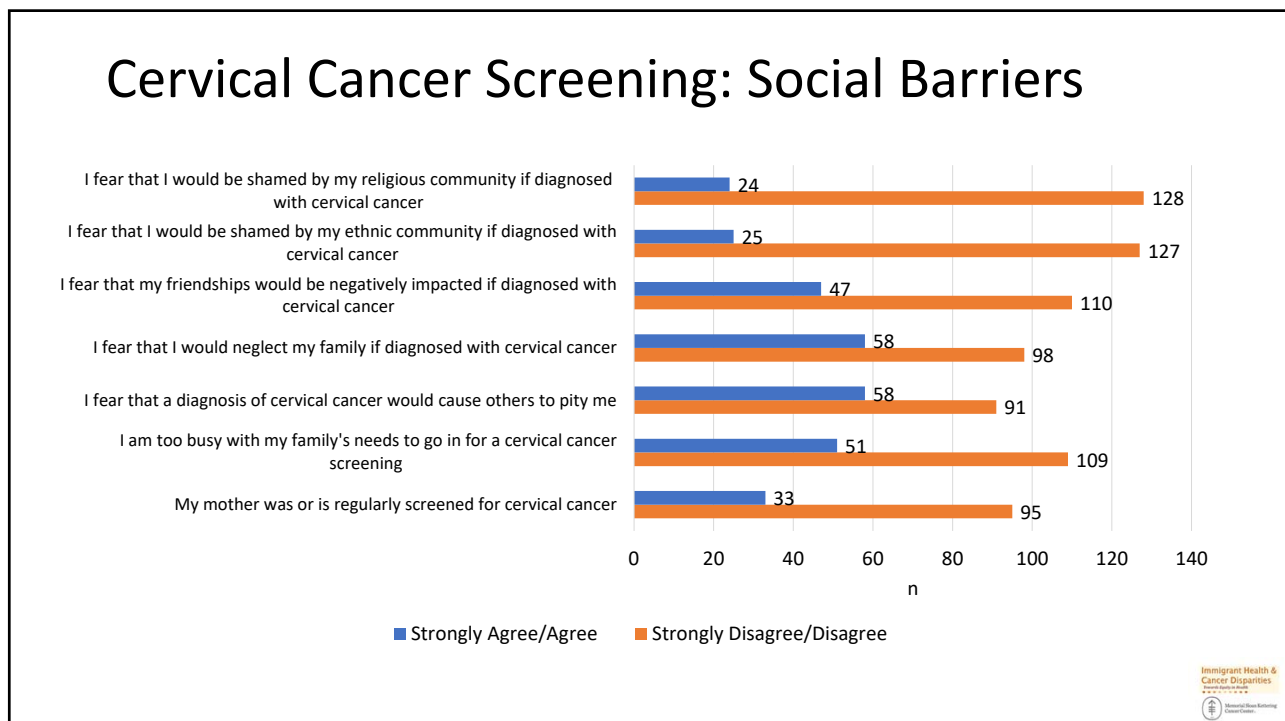
Cervical Cancer



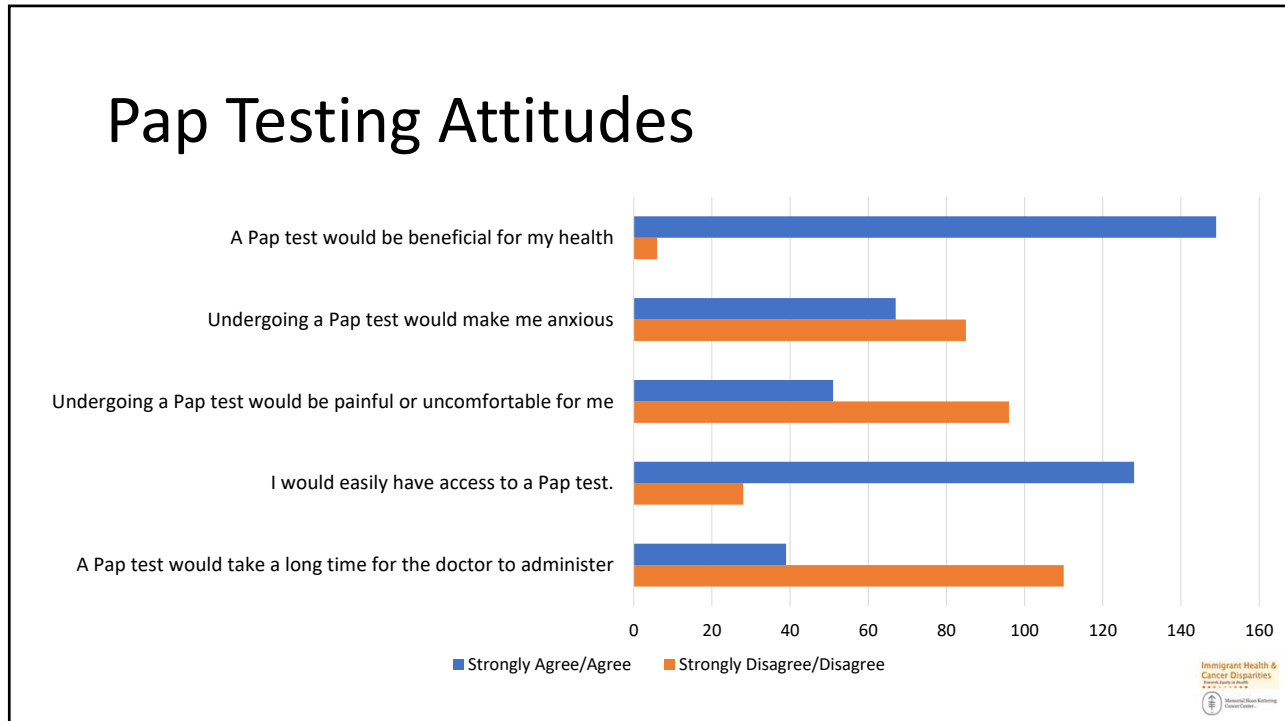
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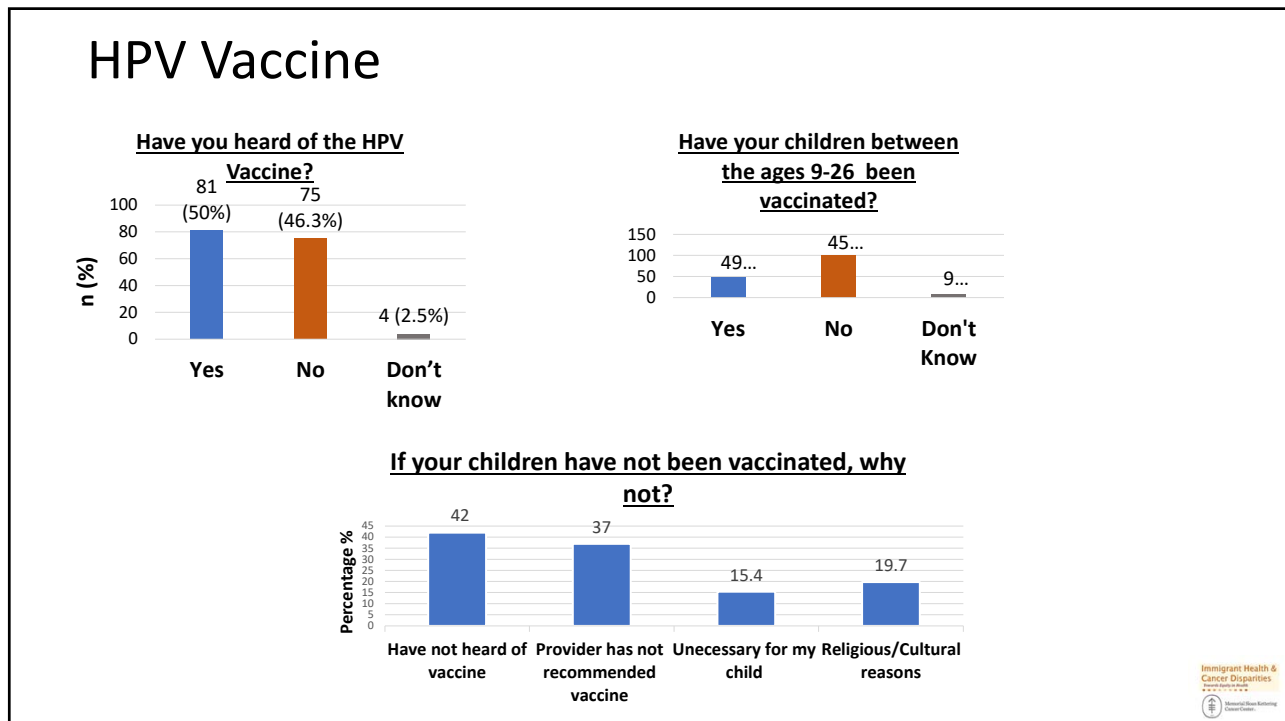
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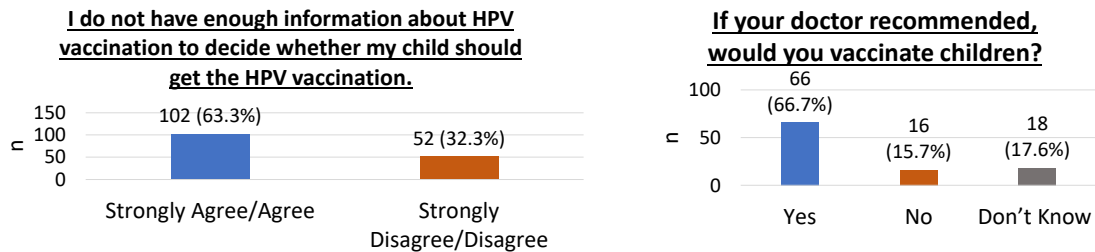


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Results: HPV Vaccine



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Conclusions

- Need for investigation of provider cervical cancer screening and prevention recommendations, including HPV vaccination, for Arab patients
- Linguistically and culturally tailored education about cervical cancer screening and prevention, including on HPV vaccination, to Arab American communities could bridge the health awareness and action gap
 - The messaging about HPV infection needs to be more nuanced and less stigmatizing

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DOTS-O Tool Feedback

Arab Health Initiative and CBO partners

- Great potential resource
- Arabic transcreation, including the audio
 - Request an Arabic speaking doctor in the community to record the audio
 - E.g, Dr. Laila Farhat, a doctor whom everyone in the community knows and trusts
 - Evaluate linguistic register once the content is in Arabic

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DOTS-O Tool Content Feedback

- Content needs to be adapted to be culturally sensitive for the Arab community
 - E.g.consider removing graphic image of cervix
- Tailor content to address cultural beliefs of Arab women around the Pap
 - For example, most Arab mothers believe that a woman should not get a Pap until marriage due to concerns around rupturing the hymen
 - Address misconception that a woman loses her virginity by doing a Pap
- Add a culturally sensitive explanation as to why a woman should start getting a Pap even before she is sexually active or married
 - Consider adding slide discussing factors that increase risk of getting cervical cancer, including family history, smoking, etc. This could be one way to discuss why it is important to get a Pap starting at 21, even if someone is not sexually active or married

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DOTS-O Tool Content Feedback


- Our surveys show that Arab women do not know what the HPV vaccine is or how it is related to cervical cancer
 - Incorporate more HPV information into the DOTS-O Tool

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References


1. Koenig, H.G.; Büssing, A. The Duke University Religion Index (DUREL): A Five-Item Measure for Use in Epidemiological Studies. *Religions* 2010, 1, 78-85.
2. Jones, C. L., Jensen, J. D., Scherr, C. L., Brown, N. R., Christy, K., & Weaver, J. (2015). The Health Belief Model as an explanatory framework in communication research: exploring parallel, serial, and moderated mediation. *Health communication*, 30(6), 566–576.
<https://doi.org/10.1080/10410236.2013.873363>
3. Miri Cohen & Faisal Azaiza (2008) Developing and testing an instrument for identifying culture-specific barriers to breast cancer screening in Israeli Arab women, *Acta Oncologica*, 47:8, 1570-1577, DOI: 10.1080/02841860802078069
4. Koenig, H.G.; Wang, Z.; Al Zaben, F.; Adi, A. Belief into Action Scale: A Comprehensive and Sensitive Measure of Religious Involvement. *Religions* 2015, 6, 1006-1016.

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Marissa Leslie Adams
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Health educator and
Advocate
HOPI Cancer Support
Services

Cancer Screening Among Native American Women Experiencing Intellectual and Developmental Disabilities:

Julie is a medical anthropologist who works with communities to address cancer disparities using qualitative and multi-method approaches to research. Her research program is broadly focused on addressing gaps in cancer prevention and treatment for communities that have experienced systemic exclusion from preventive and specialty health care

Marissa is the Program Coordinator for the Partnership for Native American Cancer Prevention project, "Improving Shared Decision-Making about Cancer Screenings Among Native American Women with Disabilities." She has 10 years' experience as a health educator and advocate with HOPI Cancer Support Services and other university-Hopi health promotion initiatives.

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Developing a Breast and Cervical Cancer Screening Education Program for Native American Women with Intellectual/Developmental Disabilities

California Primary Care Association, April 29, 2021

Marissa Adams, B.S., Program Coordinator, Northern Arizona University

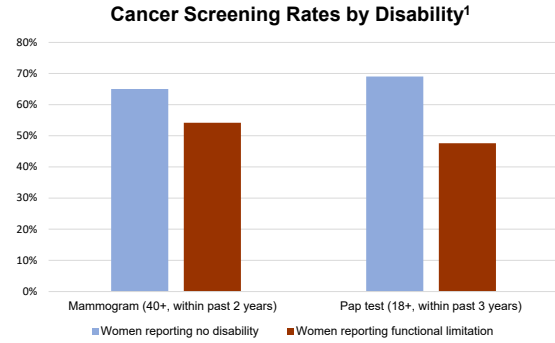
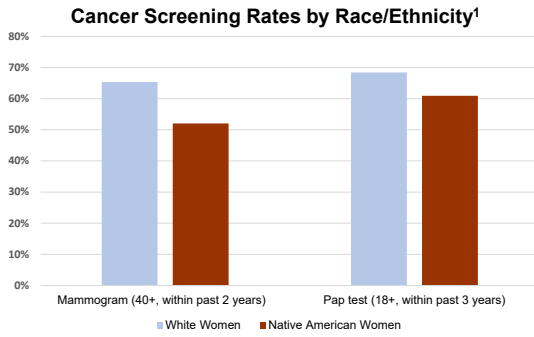
Julie Armin, PhD, Assistant Professor, Department of Family & Community Medicine,
University of Arizona



Center for Health Equity Research

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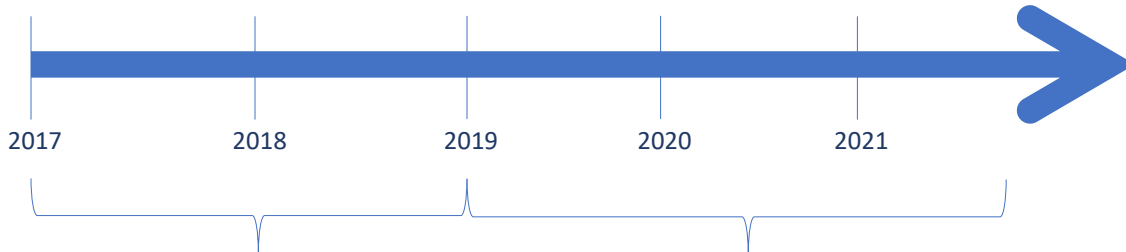
Background



1. Centers for Disease Control and Prevention (2017) National Center for Health Statistics; Pap test: <https://www.cdc.gov/nchs/fastats/pap-tests.htm>; Mammogram: <https://www.cdc.gov/nchs/data/hus/2017/070.pdf>.

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Purpose & Timeline



- Assessing readiness
- Partnership development
- Forming Community Advisory Board
- Needs assessment
- Adapting cancer screening program with two partners
- Feasibility and acceptability testing

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Methods

- Community engaged research project

Annals of International Occupational Therapy

ORIGINAL RESEARCH

Community-Engaged Research to Address Health Disparities of Indigenous Women With Disabilities

Heather J. Williamson, DrPH, MBA, OTR/L; Julie S. Armin, PhD; Ellen Stakely, OTD; Bonny Nasimi, OTD; Darold H. Joseph, PhD; Jon Meyers; Julie A. Baldwin, PhD

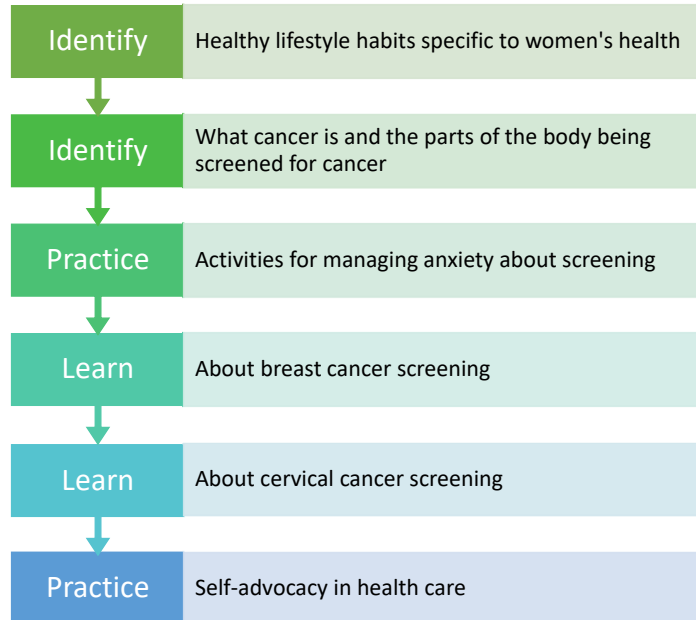
Annals of International Occupational Therapy. <https://doi.org/10.3928/24761222-20201202-02>

Posted December 14, 2020



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Learning Objectives

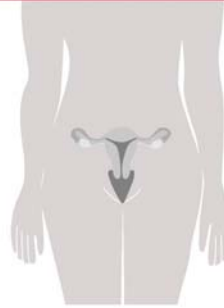


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Adapting Learning Tools – DOTS-O

- Language
 - Hopi words for slides and voiceover in Hopi
 - Provide Native American woman voiceover for the audio file (English)
 - Retain Spanish for Tucson Indian Center

What exactly IS a cervix?



The **cervix** is part of the female reproductive system.

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Adapting Learning Tools – DOTS-O

- Accessibility
 - Increase size of videos for low vision
- Self-Advocacy
 - Add some additional examples of how to do it

◀ back

Nervous about talking to your healthcare provider?

It's okay to ask questions!

Here are a few to get you started:

- Do I need a Pap smear today?
- When do I need my next Pap smear?
- When can I expect to hear about my results?
- Should I get the HPV vaccine? Are there any risks?



Dr. Kate says

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Next Steps & Conclusions

- Program materials
 - Finalizing adapted program for remote delivery
- Feasibility testing summer 2021
 - N=30 dyads

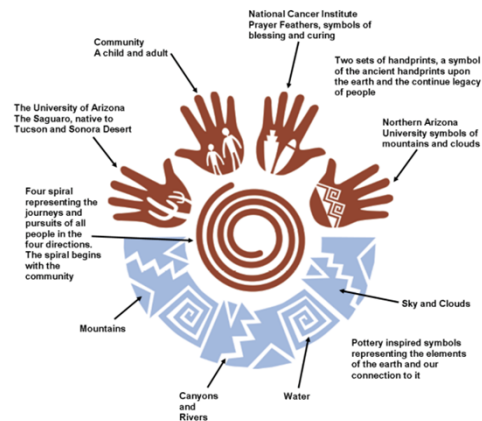


Do Not Share Image

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- Janet Rothers, PhD, UA (co-I)
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 - Bailey Lockwood, UA
 - Celeste Nunez, UA
 - Emile Saad, UA
 - Samantha Sasse, NAU
 - Sydney Schumacher, NAU
 - Leticia Lelli, NAU
 - Tara M. Chico-Jarillo, MPH, UA



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Thank You!

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<https://www.nccc-online.org/understanding-cervical-cancer-screening/>

Please send any questions and comments to Heike Thiel de Bocanegra, University of California, Irvine Hthiel@hs.uci.edu



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