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RED DE PROGRAMAS DE CRIBADO DE CÁNCER

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Cribado de cáncer de mama - general

Houssami N. **Evidence on Synthesized Two-dimensional Mammography Versus Digital Mammography When Using Tomosynthesis (Three-dimensional Mammography) for Population Breast Cancer Screening.** Clin Breast Cancer. 2017"; DOI: 10.1016/j.clbc.2017.09.012. PMID: 29066138. Available from: http://linkinghub.elsevier.com/retrieve/pii/S152682091730558X

One limitation of using digital breast tomosynthesis (3-dimensional [3D] mammography) technology with conventional (2-dimensional [2D]) mammography for breast cancer (BC) screening is the increased radiation dose from dual acquisitions. To resolve this problem, synthesized 2D (s2D) reconstruction images similar to 2D mammography were developed using tomosynthesis acquisitions. The present review summarizes the evidence for s2D versus digital mammography (2D) when using tomosynthesis (3D) for BC screening to address whether using s2D instead of 2D (alongside 3D) will yield similar detection measures. Comparative population screening studies have provided consistent evidence that cancer detection rates do not differ between integrated 2D/3D (range, 5.45-8.5/1000 screens) and s2D/3D (range, 5.03-8.8/1000 screens). Also, although the recall measures were relatively heterogeneous across included studies, little difference was found between the 2 modalities. The mean glandular dose for s2D/3D was 55% to 58% of that for 2D/3D. In the context of BC

screening, s2D/3D involves substantially less radiation than 2D/3D and provides similar detection measures. Thus, consideration of transitioning to tomosynthesis screening should aim to use s2D/3D to minimize harm.

Gray E, Donten A, Karssemeijer N, van Gils C, Evans DG, Astley S, et al. **Evaluation of a Stratified National Breast Screening Program in the United Kingdom: An Early Model-Based Cost-Effectiveness Analysis.** Value Heal. 2017;20(8):1100–9. DOI: 10.1016/j.jval.2017.04.012. PMID: 28964442. Available from: http://linkinghub.elsevier.com/retrieve/pii/S1098301517302127

CONCLUSIONS This early model-based cost-effectiveness analysis provides indicative evidence for decision makers to understand the key drivers of costs and QALYs for exemplar stratified NBSP.

Gabel P, Larsen MB, Nielsen PB, Svendstrup DB, Andersen B. **Satisfaction, discomfort, obligations, and concerns in population-based breast cancer screening: cross-sectional study in a Danish population.** BMC Health Serv Res. 2017;17(1):489. DOI: 10.1186/s12913-017-2438-2. PMID: 28709436. Available from: http://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-017-2438-2

CONCLUSIONS Overall satisfaction with breast cancer screening was very high, but discomfort, feelings of obligation, and concerns were associated with lower satisfaction levels. A continuing focus on high service in breast cancer screening is important for achieving the highest benefit from the program. This includes initiatives to employ the least painful techniques, to respect the patients' modesty as much as possible, and to deliver fast screening results and thu…

Jacklyn G, McGeechan K, Irwig L, Houssami N, Morrell S, Bell K, et al. **Trends in stage-specific breast cancer incidence in New South Wales, Australia: insights into the effects of 25 years of screening mammography.** Breast Cancer Res Treat. 2017;166(3):843–54. DOI: 10.1007/s10549-017-4443-x. PMID: 28822001. Available from: http://link.springer.com/10.1007/s10549-017-4443-x

CONCLUSIONS The incidence of all stages of BC has increased over the past 40 years, with the greatest rise seen during the established screening period for women aged 50-69 years. Our findings suggest that some of the expected benefits of screening may not have been realised and are consistent with overdiagnosis.

Lee CI, Chen LE, Elmore JG. **Risk-based Breast Cancer Screening: Implications of Breast Density.** Med Clin North Am. 2017;101(4):725–41. DOI: 10.1016/j.mcna.2017.03.005. PMID: 28577623. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0025712517300287

The approach to breast cancer screening has changed over time from a general approach to a more personalized, risk-based approach. Women with dense breasts, one of the most prevalent risk factors, are now being informed that they are at increased risk of developing breast cancer and should consider supplemental screening

beyond mammography. This article reviews the current evidence regarding the impact of breast density relative to other known risk factors, the evidence regarding supplemental screening for women with dense breasts, supplemental screening options, and recommendations for physicians having shared decision-making discussions with women who have dense breasts.

Wagh B, Chaluvarayaswamy R, Pal D. **Assessment of Adaptive Breast Cancer Screening Policies for Improved Mortality Reduction in Low to Middle Income Countries**. Asian Pac J Cancer Prev. 2017;18(9):2375–80. DOI: 10.22034/APJCP.2017.18.9.2375. PMID: 28950681. Available from: http://www.ncbi.nlm.nih.gov/pubmed/28950681

Conclusion: The framework could be useful to decide age groups that would yield maximal effectiveness in screening trials with selected screening intervals. Further, the framework could be adapted in other low to middle income countries for designing either screening trials or adaptive screening policies.

Houssami N, Lee CI, Buist DSM, Tao D. **Artificial intelligence for breast cancer screening: Opportunity or hype?** Breast. 2017;36:31–3. DOI: 10.1016/j.breast.2017.09.003. PMID: 28938172. Available from: http://www.ncbi.nlm.nih.gov/pubmed/28938172

Interpretation of mammography for breast cancer (BC) screening can confer a mortality benefit through early BC detection, can miss a cancer that is present or fast growing, or can result in false-positives. Efforts to improve screening outcomes have mostly focused on intensifying imaging practices (double instead of single-reading, more frequent screens, or supplemental imaging) that may add substantial resource expenditures and harms associated with population screening. Less attention has been given to making mammography screening practice "smarter" or more efficient. Artificial intelligence (AI) is capable of advanced learning using large complex datasets and has the potential to perform tasks such as image interpretation. With both highly-specific capabilities, and also possible un-intended (and poorly understood) consequences, this viewpoint considers the promise and current reality of AI in BC detection.

Lekanidi K, Dilks P, Suaris T, Kennett S, Purushothaman H. **Breast screening: What can the interval cancer review teach us? Are we perhaps being a bit too hard on ourselves?** Eur J Radiol. 2017;94:13–5. DOI: 10.1016/j.ejrad.2017.07.005. PMID: 28941754. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0720048X17302899

CONCLUSION Even the simple step of performing an independent blinded review of interval cancers reduces the rate of interval cancers classified as missed by up to 39%.

Muradali D, Kennedy EB, Eisen A, Holloway CMB, Smith CR, Chiarelli AM. **Breast screening for survivors of breast cancer: A systematic review.** Prev Med (Baltim). 2017;103:70–5. DOI: 10.1016/j.ypmed.2017.07.026. PMID: 28765083. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0091743517302724

Based on this review, organized screening programs should reassess their guidelines on surveillance mammography and consider including women with a PHBC.

Schiller-Fruehwirth I, Jahn B, Einzinger P, Zauner G, Urach C, Siebert U. **The Long-Term Effectiveness and Cost Effectiveness of Organized versus Opportunistic Screening for Breast Cancer in Austria.** Value Heal. 2017;20(8):1048–57. DOI: 10.1016/j.jval.2017.04.009. PMID: 28964436. Available from: http://linkinghub.elsevier.com/retrieve/pii/S1098301517302097

CONCLUSIONS The decision to adopt organized screening is likely an efficient use of limited health care resources in Austria.

Brawley OW. **On assessing the effect of breast cancer screening schemes.** Cancer. 2017;123(19):3656–9. DOI: 10.1002/cncr.30840. PMID: 28832972. Available from: http://doi.wiley.com/10.1002/cncr.30840

Yun SJ, Ryu C-W, Rhee SJ, Ryu JK, Oh JY. **Benefit of adding digital breast tomosynthesis to digital mammography for breast cancer screening focused on cancer characteristics: a meta-analysis.** Breast Cancer Res Treat. 2017 ;164(3):557–69. DOI: 10.1007/s10549-017-4298-1. PMID: 28516226. Available from: http://link.springer.com/10.1007/s10549-017-4298-1

CONCLUSIONS Adding DBT to FFDM enabled detection of early invasive breast cancer that might have been missed with FFDM alone. Knowing which cancer characteristic DBT detects may allow it to play a complementary role in predicting long-term patient outcomes and facilitate treatment planning.

Monticciolo DL, Newell MS, Hendrick RE, Helvie MA, Moy L, Monsees B, et al. **Breast Cancer Screening for Average-Risk Women: Recommendations From the ACR Commission on Breast Imaging.** J Am Coll Radiol. 2017;14(9):1137–43. DOI: 10.1016/j.jacr.2017.06.001. PMID: 28648873. Available from: http://linkinghub.elsevier.com/retrieve/pii/S1546144017306749

Breast cancer is the most common non-skin cancer and the second leading cause of cancer death for women in the United States. Before the introduction of widespread mammographic screening in the mid-1980s, the death rate from breast cancer in the US had remained unchanged for more than 4 decades. Since 1990, the death rate has declined by at least 38%. Much of this change is attributed to early detection with mammography. ACR breast cancer screening experts have reviewed data from RCTs, observational studies, US screening data, and other peer-reviewed literature to update our recommendations. Mammography screening has consistently been shown to significantly reduce breast cancer mortality over a variety of study designs. The ACR recommends annual mammography screening starting at age 40 for women of average risk of developing breast cancer. Our recommendation is based on maximizing proven benefits, which include a substantial reduction in breast cancer mortality afforded by regular screening and improved treatment options for those diagnosed

with breast cancer. The risks associated with mammography screening are also considered to assist women in making an informed choice.

Arleo EK, Hendrick RE, Helvie MA, Sickles EA. **Comparison of recommendations for screening mammography using CISNET models.** Cancer. 2017 ;123(19):3673–80. DOI: 10.1002/cncr.30842. PMID: 28832983. Available from: http://doi.wiley.com/10.1002/cncr.30842

CONCLUSION CISNET models demonstrate that the greatest mortality reduction is achieved with annual screening of women starting at age 40 years. Cancer 2017;123:3673-3680. © 2017 American Cancer Society.

Tice JA, Kerlikowske K. **Supplemental Breast Cancer Screening: A Density Conundrum**. J Gen Intern Med. 2017;32(6):593–4. DOI: 10.1007/s11606-017-3989-y. PMID: 28243876. Available from: http://dx.doi.org/10.1007/s11606-017-3989-y

sserman LJ, WISDOM Study and Athena Investigators. **The WISDOM Study: breaking the deadlock in the breast cancer screening debate.** NPJ breast cancer. 2017];3(1):34. DOI: 10.1038/s41523-017-0035-5. PMID: 28944288. Available from: http://www.nature.com/articles/s41523-017-0035-5

The WISDOM Study (Women Informed to Screen Depending On Measures of risk) is a pragmatic, adaptive, randomized clinical trial comparing a comprehensive risk-based, or personalized approach to traditional annual breast cancer screening. The multicenter trial will enroll 100,000 women, powered for a primary endpoint of non-inferiority with respect to the number of late stage cancers detected. The trial will determine whether screening based on personalized risk is as safe, less morbid, preferred by women, will facilitate prevention for those most likely to benefit, and adapt as we learn who is at risk for what kind of cancer. Funded by the Patient Centered Outcomes Research Institute, WISDOM is the product of a multi-year stakeholder engagement process that has brought together consumers, advocates, primary care physicians, specialists, policy makers, technology companies and payers to help break the deadlock in this debate and advance towards a new, dynamic approach to breast cancer screening.

Engmann NJ, Golmakani MK, Miglioretti DL, Sprague BL, Kerlikowske K, Breast Cancer Surveillance Consortium. **Population-Attributable Risk Proportion of Clinical Risk Factors for Breast Cancer.** JAMA Oncol. 2017;3(9):1228–36. DOI: 10.1001/jamaoncol.2016.6326. PMID: 28152151. Available from: http://oncology.jamanetwork.com/article.aspx?doi=10.1001/jamaoncol.2016.6326

Overall, 4747 (89.8%) premenopausal and 12 502 (95.1%) postmenopausal women with breast cancer had at least 1 breast cancer risk factor. The combined PARP of all risk factors was 52.7% (95% CI, 49.1%-56.3%) among premenopausal women and 54.7% (95% CI, 46.5%-54.7%) among postmenopausal women. Breast density was the most prevalent risk factor for both premenopausal and postmenopausal women and had the largest effect on the PARP; 39.3% (95% CI, 36.6%-42.0%) of premenopausal

and 26.2% (95% CI, 24.4%-28.0%) of postmenopausal breast cancers could potentially be averted if all women with heterogeneously or extremely dense breasts shifted to scattered fibroglandular breast density. Among postmenopausal women, 22.8% (95% CI, 18.3%-27.3%) of breast cancers could potentially be averted if all overweight and obese women attained a body mass index of less than 25. Conclusions and Relevance Most women with breast cancer have at least 1 breast cancer risk factor routinely document…

Seidenwurm D, Breslau J. **Finding the Best Recall and Cancer Detection Rates for Screening Mammography.** AJR Am J Roentgenol. 2017;209(2):W110. DOI: 10.2214/AJR.17.17998. PMID: 28731803. Available from: http://www.ajronline.org/doi/10.2214/AJR.17.17998

Georgian-Smith D. **Screening Mammography: Effect of Recall Rates by Population Type and Acknowledgement of Founding Father Myron Moskowitz.** AJR Am J Roentgenol. 2017;209(3):W197. DOI: 10.2214/AJR.17.18110. PMID: 28829174. Available from: http://www.ajronline.org/doi/10.2214/AJR.17.18110

Posso M, Puig T, Carles M, Rué M, Canelo-Aybar C, Bonfill X. **Effectiveness and cost-effectiveness of double reading in digital mammography screening: A systematic review and meta-analysis**. Eur J Radiol. Elsevier; 2017; DOI: 10.1016/j.ejrad.2017.09.013. Available from: http://dx.doi.org/10.1016/j.ejrad.2017.09.013

Conclusion: The evidence of benefit for double reading compared to single reading for digital mammography interpretation is scarce. Double reading seems to increase operational costs, have a not significantly higher false-positive rate, and a similar cancer detection rate. Abbrevia

Menezes GLG, Winter-Warnars GAO, Koekenbier EL, Groen EJ, Verkooijen HM, Pijnappel RM. **Simplifying Breast Imaging Reporting and Data System classification of mammograms with pure suspicious calcifications**. J Med Screen 2017;969141317715281. DOI: 10.1177/0969141317715281. Available from: http://journals.sagepub.com/doi/abs/10.1177/0969141317715281

ConclusionsConsidering the high predictive value for malignancy in B3 calcifications, we propose that these lesions should be classified as suspicious (B4), especially in a screening setting.

Bastos J, Rodrigues V, Paap E, Broeders M, Pina M, Cruz D, et al. **Breast cancer screening effectiveness in Portugal central Region.** Eur J Cancer Prev. 2017;1. DOI: 10.1097/CEJ.0000000000000376. PMID: 28574867. Available from: http://insights.ovid.com/crossref?an=00008469-201709001-00013
Our results are in agreement with other case-referent studies worldwide, supporting the contribution of screening practices towards the decreasing breast cancer mortality in Portugal.

Zuckerman SP, Maidment ADA, Weinstein SP, McDonald ES, Conant EF. **Imaging With Synthesized 2D Mammography: Differences, Advantages, and Pitfalls Compared With Digital Mammography.** AJR. 2017;209(1):222–9. DOI: 10.2214/AJR.16.17476. PMID: 28463546. Available from: http://www.ajronline.org/doi/10.2214/AJR.16.17476

CONCLUSION Despite subjective differences in the appearance of s2D and digital mammograms, early outcomes of screening using s2D mammography and DBT are not inferior to those achieved with digital mammography and DBT. Understanding these variations may aid in implementing this technique and improving patient outcomes.

Giess CS, Pourjabbar S, Ip IK, Lacson R, Alper E, Khorasani R. **Comparing Diagnostic Performance of Digital Breast Tomosynthesis and Full-Field Digital Mammography in a Hybrid Screening Environment**. Am J Roentgenol. American Roentgen Ray Society; 2017;209(4):929–34. DOI: 10.2214/AJR.17.17983. Available from: https://doi.org/10.2214/AJR.17.17983

CONCLUSION. FFDM and DBT recall rates were not significantly different in a mixed FFDM and DBT breast imaging practice. However, the PPV1 of recalled cases and the cancer detection rate (the primary screening objective) were significantly higher with DBT compared with FFDM.

Autier P, Boniol M. **Questionable method for estimating the influence of mammography screening on breast cancer mortality in the Netherlands.** Int J cancer. 2017;141(8):1707–8. DOI: 10.1002/ijc.30874. PMID: 28681417. Available from: http://doi.wiley.com/10.1002/ijc.30874

Jacklyn G, Howard K, Irwig L, Houssami N, Hersch J, Barratt A. **Impact of extending screening mammography to older women Information to support informed choices**. Int J Cancer. 2017;141(8):1540–50. DOI: 10.1002/ijc.30858. Available from: http://doi.wiley.com/10.1002/ijc.30858

Thus extending screening mammography in Australia to older women results in a less favourable harm to benefit ratio than stopping at age 69. Supporting informed decision making for this age group should be a public health priority.

Kotwal AA, Schonberg MA. **Cancer Screening in the Elderly: A Review of Breast, Colorectal, Lung, and Prostate Cancer Screening.** Cancer J. 2017;23(4):246–53. DOI: 10.1097/PPO.0000000000000274. PMID: 28731949. Available from: http://insights.ovid.com/crossref?an=00130404-201707000-00010

There are relatively limited data on outcomes of screening older adults for cancer; therefore, the decision to screen older adults requires balancing the potential harms of screening and follow-up diagnostic tests with the possibility of benefit. Harms of screening can be amplified in older and frail adults and include discomfort from undergoing the test itself, anxiety, potential complications from diagnostic procedures resulting from a false-positive test, false reassurance from a false-negative test, and overdiagnosis of tumors that are of no threat and may result in overtreatment. In this

paper, we review the evidence and guidelines on breast, colorectal, lung and prostate cancer as applied to older adults. We also provide a general framework for approaching cancer screening in older adults by incorporating evidence-based guidelines, patient preferences, and patient life expectancy estimates into shared screening decisions.

Johns LE, Swerdlow AJ, Moss SM. **Effect of population breast screening on breast cancer mortality to 2005 in England and Wales: A nested case-control study within a cohort of one million women**. J Med Screen2017;969141317713232. DOI: 10.1177/0969141317713232. Available from: http://journals.sagepub.com/doi/abs/10.1177/0969141317713232
ConclusionsCase-control studies designed and analysed according to current best practice guidelines offer an effective means of evaluating population breast screening.

Arleo EK, Monticciolo DL, Monsees B, McGinty G, Sickles EA. **Persistent Untreated Screening-Detected Breast Cancer: An Argument Against Delaying Screening or Increasing the Interval Between Screenings.** J Am Coll Radiol. 2017;14(7):863–7. DOI: 10.1016/j.jacr.2017.01.038. PMID: 28457814. Available from: http://linkinghub.elsevier.com/retrieve/pii/S154614401730145X

CONCLUSIONS Among 479 untreated breast cancers detected on screening mammography, none spontaneously disappeared or regressed. An unknown percentage of these cancers represent overdiagnosis, but because all untreated screen-detected cancers were visible and suspicious for malignancy at next mammographic examination, delaying the onset of screening or increasing the interval between screenings should not reduce the frequency of overdiagnosis.

Richman I, Asch SM, Bendavid E, Bhattacharya J, Owens DK. **Breast Density Notification Legislation and Breast Cancer Stage at Diagnosis: Early Evidence from the SEER Registry**. J Gen Intern Med. 2017;32(6):603–9. DOI: 10.1007/s11606-016-3904-y. Available from: http://dx.doi.org/10.1007/s11606-016-3904-y

Twenty-eight states have passed breast density notification laws, which require physicians to inform women of a finding of dense breasts on mammography.

Kopans DB. **The Canadian National Breast Screening Studies are compromised and their results are unreliable. They should not factor into decisions about breast cancer screening.** Breast Cancer Res Treat. 2017;165(1):9–15. DOI: 10.1007/s10549-017-4302-9. PMID: 28528449. Available from: http://link.springer.com/10.1007/s10549-017-4302-9

The Canadian National Breast Screening Studies were compromised by an unblinded allocation process and poor quality mammography. Contrary to the requirement that allocation in a randomized controlled trial (RCT) be blinded to avoid any possible intentional or unintentional subversion of a random allocation, all women in the CNBSS trials underwent a clinical breast examination prior to assignment to the study arm or the usual care arm. Women with abnormal clinical breast examinations were identified,

and this information was available to the coordinators who then assigned the women on open lists. It was, therefore, possible to assign women to whichever arm the coordinator chose. Although subversion was likely unintended, a significant number of women with four or more positive axillary lymph nodes were assigned to the screening arm of CNBSS1. This explains why there were more breast cancer deaths among the screened women in the first ten years of the trial and why the 5 year survival of the control women was better than 90% when the background survival in Canada at the time was only 75%. The trials were further compromised by the poor quality of the mammography which was confirmed by a review conducted by the trials' organizers. These fundamental problems compromise the CNBSS and make their results, which are major outliers in the RCT's of breast cancer screening, unreliable. Consequently, they should not be used to establish guidelines for breast cancer screening.

Chad-Friedman E, Coleman S, Traeger LN, Pirl WF, Goldman R, Atlas SJ, et al. **Psychological distress associated with cancer screening: A systematic review.** Cancer. 2017;123(20):3882–94. DOI: 10.1002/cncr.30904. PMID: 28833054. Available from: http://doi.wiley.com/10.1002/cncr.30904

CONCLUSIONS Evidence of low distress during the time of cancer screening suggests that distress might not be a widespread barrier to screening among adults who undergo screening. However, more studies are needed using validated measures of distress to further understand the extent to which screening may elicit psychological distress and impede adherence to national screening recommendations.

Beau A-B, Lynge E, Njor SH, Vejborg I, Lophaven SN. **Benefit-to-harm ratio of the Danish breast cancer screening programme.** Int J cancer. 2017;141(3):512–8. DOI: 10.1002/ijc.30758. PMID: 28470685. Available from: http://doi.wiley.com/10.1002/ijc.30758

Among 1,000 women invited to screening from age 50 to age 69 and followed until age 79, we estimated that 5.4 breast cancer deaths would be prevented and 2.1 cases overdiagnosed, under the observed scenario in Denmark of a breast cancer mortality reduction of 23.4% and 2.3% of the breast cancer cases being overdiagnosed. The estimated benefit-to-harm ratio was 2.6 for invited women and 2.5 for screened women. Hence, 2–3 women would be prevented from dying from breast cancer for every woman overdiagnosed with invasive breast cancer or DCIS. The difference between the previous published ratios and 2.6 for Denmark is probably more a reflection of the accuracy of the underlying estimates than of the actual screening programmes. Therefore, benefit-to-harm ratios should be used cautiously.

Yu J, RH N, Fowler E, Kerlikowske K, SE G. **Women's awareness and perceived importance of the harms and benefits of mammography screening: Results from a 2016 national survey**. JAMA Intern Med. 2017; Available from: http://dx.doi.org/10.1001/jamainternmed.2017.2247

There is growing scientific consensus that mammography has a modest impact on averting deaths from breast cancer, while exposing women to a number of harms.1 Yet

it is not well known how women in the general US public perceive the benefits and harms of mammography screening. Previous research has been published on public enthusiasm for screening and underestimates of harms, but these findings may be outdated.2- 4 In this study, we present 2016 data on women's awareness and perceptions of the benefits and harms of mammography, drawn from a larger survey of US adults on exposure to cancer-related information in the media

Cribado de cáncer de mama - equidad

Fancher CE, Scott A, Allen A, Dale P. **Mammographic Screening at Age 40 or 45? What Difference Does It Make? The Potential Impact of American Cancer Society Mammography Screening Guidelines**. Am Surg. 2017 Aug 1;83(8):847-849. PubMed PMID: 28822389.
This review demonstrates the significance of mammographic screening for early detection and treatment of breast cancer. Mammographic screening in women aged 40 to 44 detected tumors with fewer nodal metastases, resulting in improved survival and reaffirming the need for annual mammographic screening in this age group.

Jacklyn G, Howard K, Irwig L, Houssami N, Hersch J, Barratt A. **Impact of extending screening mammography to older women Information to support informed choices**. Int J Cancer. 2017 Oct 15;141(8):1540-1550. doi: 10.1002/ijc.30858. Epub 2017 Jul 10. Erratum in: Int J Cancer. 2017 Dec 15;141(12):E8. PubMed PMID: 28662267.
Thus extending screening mammography in Australia to older women results in a less favourable harm to benefit ratio than stopping at age 69. Supporting informed decision making for this age group should be a public health priority.

Tarazi WW, Bradley CJ, Bear HD, Harless DW, Sabik LM. **Impact of Medicaid disenrollment in Tennessee on breast cancer stage at diagnosis and treatment.** Cancer. 2017 Sep 1;123(17):3312-3319. doi: 10.1002/cncr.30771. Epub 2017 Jun 26. PubMed PMID: 28649732.
CONCLUSIONS: The results of the current study indicate that Medicaid disenrollment is associated with a later stage of disease at the time of breast cancer diagnosis, thereby providing evidence of the potential negative health impacts of Medicaid contractions.

Nguyen KH, Pasick RJ, Stewart SL, Kerlikowske K, Karliner LS. **Disparities in abnormal mammogram follow-up time for Asian women compared with non-Hispanic white women and between Asian ethnic groups**. Cancer. 2017 Sep 15;123(18):3468-3475. doi: 10.1002/cncr.30756. Epub 2017 Jun 12. PubMed PMID: 28603859; PubMed Central PMCID: PMC5648644.
CONCLUSIONS: Asian women, particularly Filipina and Vietnamese women, were less likely than NHW women to receive timely follow-up after an abnormal screening mammogram. Research should disaggregate Asian ethnicity to better understand and address barriers to effective cancer prevention.

Koroukian SM, Bakaki PM, Htoo PT, Han X, Schluchter M, Owusu C, Cooper GS, Rose J, Flocke SA. **The Breast and Cervical Cancer Early Detection Program, Medicaid, and breast cancer outcomes among Ohio's underserved women**. Cancer. 2017 Aug 15;123(16):3097-3106. doi: 10.1002/cncr.30720. Epub 2017 May 23. PubMed PMID: 28542870.
CONCLUSIONS: Medicaid/peridiagnosis women are at particularly high risk to be diagnosed with advanced-stage disease. Efforts to reduce breast cancer disparities must target this group of women before they present to Medicaid.

Pitman JA, McGinty GB, Soman RR, Drotman MB, Reichman MB, Arleo EK. **Screening Mammography for Women in Their 40s: The Potential Impact of the American Cancer Society and U.S. Preventive Services Task Force Breast Cancer Screening Recommendations**. AJR Am J Roentgenol. 2017 Sep;209(3):697-702. doi: 10.2214/AJR.16.17759. Epub 2017 May 15. PubMed PMID: 28504572.
CONCLUSION: Women 40-49 years old had 18.8% of all screen-detected breast cancers. The two cohorts (40-44 and 45-49 years old) had similar incidences of screen-detected breast cancer (8.9%, 9.8%) and cancer detection rates within performance benchmark standards, supporting a similar recommendation for both cohorts and the American College of Radiology recommendation of annual screening mammography starting at age 40.

Cribado de cáncer de cuello de útero - general

Burger EA, Pedersen K, Sy S, Kristiansen IS, Kim JJ. **Choosing wisely: a model-based analysis evaluating the trade-offs in cancer benefit and diagnostic referrals among alternative HPV testing strategies in Norway**. Br J Cancer. Cancer Research UK; 2017;117(6):783–90. Available from: http://dx.doi.org/10.1038/bjc.2017.248

Conclusions: We found that in order to maximise cancer benefits HPV-based screening among unvaccinated women should not be delayed: rather, policy makers should utilise the triage mechanism to control colposcopy referrals.

Sawaya GF, Huchko MJ. **Cervical Cancer Screening.** Med Clin North Am. 2017 [cited 2017 Sep 5];101(4):743–53. DOI: 10.1016/j.mcna.2017.03.006. PMID: 28577624. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0025712517300299

Cervical cancer screening in the United States has accompanied profound decreases in cancer incidence and mortality over the last half century. Two screening strategies are currently endorsed by US-based guideline groups: (1) triennial cytology for women aged 21 to 65 years, and (2) triennial cytology for women aged 21 to 29 years followed by cytology plus testing for high-risk human papillomavirus types every 5 years for women aged 30 years and older. Providing women with affordable, easily accessible

screening, follow-up of abnormal tests, and timely treatment will result in the greatest impact of screening on cervical cancer incidence and mortality.

Mezei AK, Armstrong HL, Pedersen HN, Campos NG, Mitchell SM, Sekikubo M, et al. **Cost-effectiveness of cervical cancer screening methods in low- and middle-income countries: A systematic review.** Int J cancer. 2017 [cited 2017 Jun 9];141(3):n/a-n/a. DOI: 10.1002/ijc.30695. PMID: 28297074. Available from: http://doi.wiley.com/10.1002/ijc.30695

We conclude that HPV testing and VIA are more cost-effective screening methods than cytology in LMICs. Policy makers should consider HPV testing with self-collection of samples if it yields gains in population coverage.

Velentzis LS, Caruana M, Simms KT, Lew J-B, Shi J-F, Saville M, et al. **How will transitioning from cytology to HPV testing change the balance between the benefits and harms of cervical cancer screening? Estimates of the impact on cervical cancer, treatment rates and adverse obstetric outcomes in Australia, a high vaccination**. Int J Cancer. :n/a-n/a. DOI: 10.1002/ijc.30926. Available from: http://dx.doi.org/10.1002/ijc.30926

For HPV screening, relative reductions of 33% and 22% in cancer risk for unvaccinated and vaccinated cohorts are predicted, respectively, compared to cytology. Without vaccination, a 4% increase in treatment risk for HPV versus cytology screening is predicted, implying a possible increase in pre-term delivery (PTD) and low birthweight (LBW) events of 19-35 and 14-37, respectively, per 100,000 unvaccinated women. However, in vaccinated cohorts treatment risk will decrease by 13%, potentially leading to 4-41 fewer PTD events and from 2 more to 52 fewer LBW events per 100,000 vaccinated women. HPV screening starting at age 25 in populations with high vaccination coverage, is therefore expected to decrease the risks of cervical cancer and excisional treatment. This article is protected by copyright. All rights reserved.

Marlow LA V, Chorley AJ, Haddrell J, Ferrer R, Waller J. **Understanding the heterogeneity of cervical cancer screening non-participants: Data from a national sample of British women.** Eur J Cancer. 2017 [cited 2017 Sep 5];80:30–8. DOI: 10.1016/j.ejca.2017.04.017. PMID: 28535495. Available from: http://linkinghub.elsevier.com/retrieve/pii/S095980491730919X

CONCLUSION The majority of cervical cancer screening non-participants are not making an active decision not to attend but rather are either unaware or unable to act. There are clear sociodemographic differences between non-participant types, which could be used to identify where tailored interventions may be best targeted.

Veldhuijzen NJ, Polman NJ, Snijders PJF, Meijer CJLM, Berkhof J. **Stratifying HPV-positive women for CIN3+ risk after one and two rounds of HPV-based screening**. Int J Cancer. 2017 [cited 2017 Jul 5]; DOI: 10.1002/ijc.30865. Available from: http://doi.wiley.com/10.1002/ijc.30865

Our results indicate that at a second round of HPV-based screening, risk differentiation by cytology remained strong, but was diminished for HPV 16/18 genotyping because of

a larger proportion of incident infections.

Castle PE, Kinney WK, Cheung LC, Gage JC, Fetterman B, Poitras NE, et al. **Why does cervical cancer occur in a state-of-the-art screening program?** Gynecol Oncol. 2017 [cited 2017 Nov 15];146(3):546–53. DOI: 10.1016/j.ygyno.2017.06.003. PMID: 28606721. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0090825817308983

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■ Cribado de cáncer de cuello de útero - equidad

Fowler CI, Saraiya M, Moskosky SB, Miller JW, Gable J, Mautone-Smith N. **Trends in Cervical Cancer Screening in Title X-Funded Health Centers - United States, 2005-2015.** MMWR Morb Mortal Wkly Rep. 2017 Sep 22;66(37):981-985. doi: 10.15585/mmwr.mm6637a4. PubMed PMID: 28934183.

Although aggregated data contribute to understanding of cervical cancer screening trends in Title X centers, studies using client-level and encounter-level data are needed to assess the appropriateness of cervical cancer screening in individual cases.

Szalacha LA, Kue J, Menon U**. Knowledge and Beliefs Regarding Breast and Cervical Cancer Screening Among Mexican-Heritage Latinas**. Cancer Nurs. 2017 Sep/Oct;40(5):420-427. doi: 10.1097/NCC.0000000000000423. PubMed PMID: 27472190.

CONCLUSIONS: Rather than focusing on Latinas' knowledge and/or misconceptions of breast and cervical cancer in screening-related education, researchers must examine what Latinas believe and leverage those convictions to expand their perceptions and behaviors related to breast and cervical cancer prevention practices.

Cribado de cáncer colorrectal - general

Papin-Lefebvre F, Guillaume E, Moutel G, Launoy G, Berchi C. **General practitioners' preferences with regard to colorectal cancer screening organisation Colon cancer screening medico-legal aspects.** Health Policy (New York). 2017 [cited 2017 Nov 15];121(10):1079–84. DOI: 10.1016/j.healthpol.2017.08.013. PMID: 28916406. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0168851017302282

CONCLUSIONS Our results reveals that current colorectal cancer screening organisation is not adapted to general practitioners preferences. This work offers the public authorities avenues for reflection on possible developments in order to optimize the involvement of general practitioners in the promotion of cancer screening programme.

van der Vlugt M, Grobbee EJ, Bossuyt PMM, Bos A, Bongers E, Spijker W, et al. **Interval Colorectal Cancer Incidence Among Subjects Undergoing Multiple Rounds of Fecal Immunochemical Testing.** Gastroenterology. 2017 [cited 2017 Nov 15];153(2):439–447.e2. DOI: 10.1053/j.gastro.2017.05.004. PMID: 28483499. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0016508517355580

CONCLUSIONS In an analysis of data from a pilot FIT-based biennial screening program, we found that among persons screened by FIT, 23% developed FIT interval cancer. FIT therefore detects CRC with 77% sensitivity. The proportion of FIT interval cancers in FIT screening appears to be lower than that with guaiac fecal occult blood testing.

Kaminski MF, Wieszczy P, Rupinski M, Wojciechowska U, Didkowska J, Kraszewska E, et al. **Increased Rate of Adenoma Detection Associates With Reduced Risk of Colorectal Cancer and Death.** Gastroenterology. 2017 [cited 2017 Nov 15];153(1):98–105. DOI: 10.1053/j.gastro.2017.04.006. PMID: 28428142. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0016508517354410

CONCLUSIONS In a prospective study of individuals who underwent screening colonoscopy within a National Colorectal Cancer Screening Program, we associated increased ADR with a reduced risk of interval colorectal cancer and death.

Brenner AT, Dougherty M, Reuland DS. **Colorectal Cancer Screening in Average Risk Patients.** Med Clin North Am. 2017 [cited 2017 Nov 15];101(4):755–67. DOI: 10.1016/j.mcna.2017.03.007. PMID: 28577625. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0025712517300305

Colorectal cancer (CRC) contributes a major burden of cancer mortality in the United States. There are multiple effective screening approaches that can reduce CRC mortality. These approaches are supported by different levels of evidence, and each has its own advantages and disadvantages. Implementing a systematic approach to screening that addresses the multiple steps involved in the screening process is

essential to improving population-level CRC screening. Offering patients stool-based screening is important for increasing screening uptake. However, programs that offer stool testing must support the population health infrastructure needed to promote adherence to repeat testing and follow-up of abnormal tests.

Hamzehzadeh L, Yousefi M, Ghaffari S-H. **Colorectal Cancer Screening: A Comprehensive Review to Recent Non-Invasive Methods.** Int J Hematol stem cell Res. 2017 [cited 2017 Nov 15];11(3):250–61. PMID: 28989593. Available from: http://www.ncbi.nlm.nih.gov/pubmed/28989593

Colorectal cancer (CRC) is one of the most common cancers worldwide and considered to be one of the hassles in medical communities. CRC develops from precancerous polyps in the colon or rectum and is preventable and curable by an early diagnosis and with the removal of premalignant polyps. In recent years, scientists have looked for inexpensive and safe ways to detect CRC in its earliest stages. Strong evidence shows that screening for CRC is a crucial way to reduce the incidence and mortality of this devastating disease. The main purpose for screening is to detect cancer or pre-cancer signs in all asymptomatic patients. In this review, we holistically introduce major pathways involved in the initiation and progression of colorectal tumorgenesis, which mainly includes chromosome instability (CIN), microsatellite instability (MSI), the CpG island methylator phenotype (CIMP), and we then will discuss different screening tests and especially the latest non-invasive fecal screening test kits for the detection of CRC.

Krilaviciute A, Stock C, Brenner H. **International variation in the prevalence of preclinical colorectal cancer: Implications for predictive values of noninvasive screening tests and potential target populations for screening.** Int J cancer. 2017 [cited 2017 Aug 7];141(8):1566–75. DOI: 10.1002/ijc.30867. PMID: 28670788. Available from: http://www.ncbi.nlm.nih.gov/pubmed/28670788
Variation in CRC prevalence profoundly affects expected PPVs of screening tests, and PPVs should be carefully considered when decisions on screening tests and strategies are made for specific populations and health care systems. Here, we provide estimates of preclinical CRC and expected PPVs and NPVs of noninvasive screening tests, which may enhance the empirical basis for planning of population-based CRC screening strategies.

Brand EC, Crook JE, Thomas CS, Siersema PD, Rex DK, Wallace MB. **Development and validation of a prediction model for adenoma detection during screening and surveillance colonoscopy with comparison to actual adenoma detection rates.** Green J, editor. PLoS One. 2017 [cited 2017 Nov 15];12(9):e0185560. DOI: 10.1371/journal.pone.0185560. PMID: 28957445. Available from: http://dx.plos.org/10.1371/journal.pone.0185560

CONCLUSION The substantial variation in ADRs could only partially be explained by patient-related factors. These data suggest that ADR variation could likely also be due to other factors, e.g. physician or technical issues.

Ritvo P, Myers RE, Serenity M, Gupta S, Inadomi JM, Green BB, et al. **Taxonomy for**

colorectal cancer screening promotion: Lessons from recent randomized controlled trials. Prev Med (Baltim). 2017 [cited 2017 Aug 7];101:229–34. DOI: 10.1016/j.ypmed.2016.12.024. PMID: 28024865. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0091743516304285

CONCLUSION PIs of key RCTs (2012-2015) derived a CRCS taxonomy useful in detailed examination of CRCS promotion and design of future RCTs.

James PD, Rabeneck L, Yun L, Paszat L, Baxter NN, Govindarajan A, et al. **Repeated faecal occult blood testing is associated with decreased advanced colorectal cancer risk: A population-based study**. J Med Screen. SAGE Publications; 2017;969141317718860. DOI: 10.1177/0969141317718860. Available from: http://dx.doi.org/10.1177/0969141317718860

Conclusions Repeated faecal occult blood testing is associated with a decreased risk of advanced colorectal cancer. Our findings support the use of organized screening programmes that employ repeated faecal occult blood testing to improve colorectal cancer outcomes at population level.

Bjerrum A, Andersen O, Fischer A, Lindebjerg J, Lynge E. **Long-term risk of colorectal cancer after negative colonoscopy in a Danish gFOBT screening cohort.** Int J cancer. 2017 [cited 2017 Aug 7];141(3):503–11. DOI: 10.1002/ijc.30756. PMID: 28463410. Available from: http://doi.wiley.com/10.1002/ijc.30756

Since FOBT screen positive persons in our study remained at average risk of CRC despite of a negative index colonoscopy, we question the safety of suspending FOBT screening for this group. It needs to be monitored whether recent efforts to improve colonoscopy quality have been successful in ensuring low CRC risk after negative colonoscopy also in FOBT positive persons.

Preen DB, Lansdorp-Vogelaar I, Ee HC, Platell C, Cenin DR, Troeung L, et al. **Optimizing Patient Risk Stratification for Colonoscopy Screening and Surveillance of Colorectal Cancer: The Role for Linked Data.** Front public Heal. 2017 [cited 2017 Nov 15];5:234. DOI: 10.3389/fpubh.2017.00234. PMID: 28944221. Available from: http://journal.frontiersin.org/article/10.3389/fpubh.2017.00234/full

McLeod M, Kvizhinadze G, Boyd M, Barendregt J, Sarfati D, Wilson N, et al. **Colorectal cancer screening: How health gains and cost-effectiveness vary by ethnic group, the impact on health inequalities, and the optimal age-range to screen.** Cancer Epidemiol Biomarkers Prev. 2017; Available from: http://cebp.aacrjournals.org/content/early/2017/06/16/1055-9965.EPI-17-0150.abstract

Conclusion CRC screening in NZ using FOBTi is likely to be cost-effective, but risks increasing inequalities in health for Māori. Impact To avoid or mitigate the generation of further health inequalities, attention should be given to underserved population groups when planning and implementing screening programmes.

Green BB, Anderson ML, Cook AJ, Chubak J, Fuller S, Meenan RT, et al. **A centralized mailed program with stepped increases of support increases time in compliance with colorectal cancer screening guidelines over 5 years: A randomized trial.** Cancer. 2017 [cited 2017 Nov 15];123(22):4472–80. DOI: 10.1002/cncr.30908. PMID: 28753230. Available from: http://doi.wiley.com/10.1002/cncr.30908

CONCLUSIONS In a health care organization with clinic-based activities to increase CRC screening, a centralized program led to increased CRC screening adherence over 5 years. Longer term data on screening adherence and its impact on CRC outcomes are needed.

Arana-Arri E, Idigoras I, Uranga B, Pérez R, Irurzun A, Gutiérrez-Ibarluzea I, et al. **Population-based colorectal cancer screening programmes using a faecal immunochemical test: should faecal haemoglobin cut-offs differ by age and sex?** BMC Cancer. 2017;17(1):577. DOI: 10.1186/s12885-017-3555-3. Available from: https://doi.org/10.1186/s12885-017-3555-3

The Basque Colorectal Cancer Screening Programme has both high participation rate and high compliance rate of colonoscopy after a positive faecal occult blood test (FIT). Although, colorectal cancer (CRC) screening with biannual (FIT) has shown to reduce CRC mortality, the ultimate effectiveness of the screening programmes depends on the accuracy of FIT and post-FIT colonoscopy, and thus, harms related to false results might not be underestimated. Current CRC screening programmes use a single faecal haemoglobin concentration (f-Hb) cut-off for colonoscopy referral for both sexes and all ages. We aimed to determine optimum f-Hb cut-offs by sex and age without compromising neoplasia detection and interval cancer proportion.

Le Pimpec F, Moutel G, Piette C, Lièvre A, Bretagne J-F. **Fecal immunological blood test is more appealing than the guaiac-based test for colorectal cancer screening.** Dig liver Dis. 2017 [cited 2017 Nov 15];49(11):1267–72. DOI: 10.1016/j.dld.2017.08.018. PMID: 28867474. Available from: http://linkinghub.elsevier.com/retrieve/pii/S1590865817310083

CONCLUSIONS Our study demonstrated that the simplicity of FIT and the endorsement of practitioners were both major motivations for FIT compliance among non-respondents in at least two previous consecutive campaigns.

Hansen AT, Hoffmann-Lücke E, Nielsen BK, Reinholdt B, Hindersson P, Heidemann K, et al. **Delayed sample arrival at the laboratory does not lead to more false negatives in the Danish population screening for colorectal cancer.** Scand J Clin Lab Invest. 2017 [cited 2017 Nov 15];1–4. DOI: 10.1080/00365513.2017.1379091. PMID: 28933963. Available from: https://www.tandfonline.com/doi/full/10.1080/00365513.2017.1379091

Our stability tests showed no positive samples switching to false negative after storage; however, some negative samples turned false positive, especially at 30 °C. The data

showed no change in the distribution of iFOBT tests below and above cut-off after July 2016. We found no evidence that an enhanced lag time increased the number of false negative iFOBT tests in the Danish screening program for colorectal cancer.

McLeod M, Kvizhinadze G, Boyd M, Barendregt J, Sarfati D, Wilson N, et al. **Colorectal Cancer Screening: How Health Gains and Cost-Effectiveness Vary by Ethnic Group, the Impact on Health Inequalities, and the Optimal Age Range to Screen.** Cancer Epidemiol Biomarkers Prev. 2017 [cited 2017 Nov 15];26(9):1391–400. DOI: 10.1158/1055-9965.EPI-17-0150. PMID: 28626068. Available from: http://cebp.aacrjournals.org/lookup/doi/10.1158/1055-9965.EPI-17-0150
Conclusions: Colorectal cancer screening in NZ using FOBTi is likely to be cost-effective but risks increasing inequalities in health for Māori.Impact: To avoid or mitigate the generation of further health inequalities, attention should be given to underserved population groups when planning and implementing screening programs. Cancer Epidemiol Biomarkers Prev; 26(9); 1391-400. ©2017 AACR.

Digby J, Fraser CG, Carey FA, Steele RJC. **Can the performance of a quantitative FIT-based colorectal cancer screening programme be enhanced by lowering the threshold and increasing the interval?** Gut. 2017 [cited 2017 Nov 15];gutjnl-2017-314862. DOI: 10.1136/gutjnl-2017-314862. PMID: 28838973. Available from: http://gut.bmj.com/lookup/doi/10.1136/gutjnl-2017-314862

Issa IA, Noureddine M. **Colorectal cancer screening: An updated review of the available options.** World J Gastroenterol. 2017 [cited 2017 Nov 15];23(28):5086–96. DOI: 10.3748/wjg.v23.i28.5086. PMID: 28811705. Available from: http://www.wjgnet.com/1007-9327/full/v23/i28/5086.htm

Colorectal cancer (CRC) is a significant cause of morbidity and mortality worldwide. However, colon cancer incidence and mortality is declining over the past decade owing to adoption of effective screening programs. Nevertheless, in some parts of the world, CRC incidence and mortality remain on the rise, likely due to factors including "westernized" diet, lifestyle, and lack of health-care infrastructure and resources. Participation and adherence to different national screening programs remain obstacles limiting the achievement of screening goals. Different modalities are available ranging from stool based tests to radiology and endoscopy with varying sensitivity and specificity. However, the availability of these tests is limited to areas with high economic resources. Recently, FDA approved a blood-based test (Epi procolon(®)) for CRC screening. This blood based test may serve to increase the participation and adherence rates. Hence, leading to increase in colon cancer detection and prevention. This article will discuss various CRC screening tests with a particular focus on the data regarding the new approved blood test. Finally, we will propose an algorithm for a simple cost-effective CRC screening program.

Deding U, Henig AS, Salling A, Torp-Pedersen C, Bøggild H. **Sociodemographic predictors of participation in colorectal cancer screening.** Int J Colorectal Dis. 2017 [cited 2017 Nov 15];32(8):1117–24. DOI: 10.1007/s00384-017-2832-6. PMID: 28501944. Available from: http://link.springer.com/10.1007/s00384-017-2832-6

CONCLUSION Participation in colorectal cancer screening was high in Denmark in 2014 and 2015. Large differences in participation were seen between sociodemographic subgroups, potentially resulting in social inequality in the benefits from screening. Future efforts to increase participation should focus on the low compliance subgroups, such as singles, non-Western immigrants and people from the lowest socioeconomic groups.

Vleugels JLA, Dekker E. **Does polyp size matter?** Endosc Int Open. © Georg Thieme Verlag KG · Stuttgart · New York; 2017;5(8):746–8. DOI: 10.1055/s-0043-112853. Available from: https://eref.thieme.de/ejournals/2196-9736_2017_08#/10.1055-s-0043-112853

Sali L, Grazzini G, Mascalchi M. **CT colonography: role in FOBT-based screening programs for colorectal cancer.** Clin J Gastroenterol. 2017 [cited 2017 Nov 15];10(4):312–9. DOI: 10.1007/s12328-017-0744-1. PMID: 28447326. Available from: http://link.springer.com/10.1007/s12328-017-0744-1

First, CTC is recommended in FOBT-positive subjects when colonoscopy is refused, incomplete or contraindicated. For these indications CTC should replace double-contrast barium enema. Second, conversely, CTC is not currently recommended as a second-level examination prior to colonoscopy in all FOBT-positive subjects, as this strategy is most probably not cost-effective. Finally, CTC may be considered instead of colonoscopy for surveillance after adenoma removal, but specific studies are needed.

Saraste D, Öhman DJ, Sventelius M, Elfström KM, Blom J, Törnberg S. **Initial participation as a predictor for continuous participation in population-based colorectal cancer screening**. J Med Screen. SAGE Publications; 2017;969141317717757. DOI: 10.1177/0969141317717757. Available from: http://dx.doi.org/10.1177/0969141317717757
ConclusionsParticipation in the first round of screening is a strong predictor for participation in subsequent rounds. Therefore, reducing barriers for initial participation is a key for achieving consistent participation over several rounds in organized colorectal cancer screening programmes.

Osborne JM, Wilson C, Duncan A, Cole SR, Flight I, Turnbull D, et al. **Patterns of participation over four rounds of annual fecal immunochemical test-based screening for colorectal cancer: what predicts rescreening?** BMC Public Health. 2017 [cited 2017 Aug 7];18(1):81. DOI: 10.1186/s12889-017-4634-8. PMID: 28764667. Available from: http://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-017-4634-8
CONCLUSIONS The findings identify those at risk of non- or inconsistent participation in rescreening. They should aid targeting of interventions for demographic groups at risk and ensuring screening experiences are not perceived as unpleasant or difficult.

Meester RGS, Doubeni CA, Zauber AG, van Ballegooijen M, Corley DA, Lansdorp-Vogelaar I. **Impact of adenoma detection on the benefit of faecal testing vs. colonoscopy for colorectal cancer**. Int J Cancer. :n/a-n/a. DOI: 10.1002/ijc.30933.

Available from: http://dx.doi.org/10.1002/ijc.30933

This suggests that relative cancer incidence and mortality reductions for FIT vs. colonoscopy screening may differ by ADR, with fewer predicted deaths with colonoscopy screening in higher ADR settings and fewer deaths with annual FIT screening in lower ADR settings.

Blom J, Törnberg S. **Interval cancers in a guaiac-based colorectal cancer screening programme: Consequences on sensitivity.** J Med Screen. 2017 [cited 2017 Nov 15];24(3):146–52. DOI: 10.1177/0969141316682983. PMID: 28142309. Available from: http://journals.sagepub.com/doi/10.1177/0969141316682983

Conclusion Interval cancer is a quality indicator of a screening programme. As the interval cancer-rate determined in a well-organized population-based screening programme was actually higher than the screen-detected cancer rate, a change to a more sensitive screening test is indicated. The lower screen-detected cancers among women, and compliance and quality of work-up colonoscopies also need attention.

Buron A, Auge JM, Sala M, Román M, Castells A, Macià F, et al. **Association between socioeconomic deprivation and colorectal cancer screening outcomes: Low uptake rates among the most and least deprived people**. Goel A, editor. PLoS One. San Francisco, CA USA: Public Library of Science; 2017;12(6):e0179864. DOI: 10.1371/journal.pone.0179864. Available from: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC5473580/

CONCLUSION: Unlike most regions where inequalities are graded along the socioeconomic continuum, inequalities in the uptake of colorectal cancer screening in Spain seem to be concentrated first in the most disadvantaged group and second in the least deprived group. The correlation of deprivation with FIT-positivity and faecal haemoglobin below the positivity threshold is worrying due to its association with colorectal cancer and overall mortality.

Brenner H, Werner S. **Selecting a Cut-off for Colorectal Cancer Screening With a Fecal Immunochemical Test.** Clin Transl Gastroenterol. 2017 [cited 2017 Nov 15];8(8):e111. DOI: 10.1038/ctg.2017.37. PMID: 28771240. Available from: http://www.nature.com/doifinder/10.1038/ctg.2017.37

CONCLUSIONS Our study illustrates delineation of a range of meaningful cut-offs (here: 9-25 µg Hb/g feces) according to expected diagnostic yield in a true screening setting. Selecting a cut-off within or beyond this range should consider characteristics of the specific target population, such as AN prevalence or available colonoscopy capacity.

Schiff GD, Bearden T, Hunt LS, Azzara J, Larmon J, Phillips RS, et al. **Primary Care Collaboration to Improve Diagnosis and Screening for Colorectal Cancer.** Jt Comm J Qual patient Saf. 2017 [cited 2017 Nov 15];43(7):338–50. DOI: 10.1016/j.jcjq.2017.03.004. PMID: 28648219. Available from: http://linkinghub.elsevier.com/retrieve/pii/S1553725017301058

CONCLUSION The collaborative effectively engaged teams in a broad set of process improvements with key lessons learned related to barriers, information technology challenges, outreach challenges/strategies, and importance of stakeholder and patient engagement.

Pignone M, DP M, Jr, Miller DP. **Using Outreach to Improve Colorectal Cancer Screening.** JAMA. 2017 [cited 2017 Nov 15];318(9):799–800. DOI: 10.1001/jama.2017.10606. PMID: 28873142. Available from: http://jama.jamanetwork.com/article.aspx?doi=10.1001/jama.2017.10606

Colorectal cancer (CRC) is the second leading cause of cancer death in the United States, with more than 50 000 deaths expected in 2017.1 Screening can reduce CRC mortality, and several methods of screening are available and recommended for average-risk adults aged 50 years to 75 years.2- 4 Modeling studies suggest that several different methods of screening produce relatively similar levels of mortality reduction if there is good adherence to the underlying screening program.5

AG S, Gupta S, Skinner CS, Al E, Singal AG, Gupta S, et al. **Effect of colonoscopy outreach vs fecal immunochemical test outreach on colorectal cancer screening completion: A randomized clinical trial**. JAMA. 2017 [cited 2017 Nov 15];318(9):806–15. DOI: 10.1001/jama.2017.11389. PMID: 28873161. Available from: http://jama.jamanetwork.com/article.aspx?doi=10.1001/jama.2017.11389

Vanaclocha-Espi M, Ibáñez J, Molina-Barceló A, Pérez E, Nolasco A, Font R, et al. **Factors influencing participation in colorectal cancer screening programs in Spain.** Prev Med (Baltim). 2017 [cited 2017 Sep 28];105:190–6. DOI: 10.1016/j.ypmed.2017.08.019. PMID: 28887191. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0091743517303067

In conclusion, the results of this study show that screening participation could be enhanced by inclusion of the FOBT kit with the screening invitation and the use of the quantitative FIT.

Guiriguet C, Pera G, Castells A, Toran P, Grau J, Rivero I, et al. **Impact of comorbid conditions on participation in an organised colorectal cancer screening programme: a cross-sectional study.** BMC Cancer. 2017 [cited 2017 Nov 15];17(1):524. DOI: 10.1186/s12885-017-3516-x. PMID: 28784093. Available from: http://bmccancer.biomedcentral.com/articles/10.1186/s12885-017-3516-x

CONCLUSIONS Having three or more dominant chronic diseases, was associated with lower participation in a faecal immunochemical test-based colorectal cancer screening programme, whereas individuals with multiple minor chronic diseases were more likely to participate. Further research is needed to explore comorbidity as a cause of non-participation in colorectal cancer screening programmes and which individuals could benefit most from colorectal cancer screening.

Swartz AW, Eberth JM, Josey MJ, Strayer SM. **Reanalysis of All-Cause Mortality in the U.S. Preventive Services Task Force 2016 Evidence Report on Colorectal Cancer Screening.** Ann Intern Med. 2017 [cited 2017 Nov 15];167(8):602–3. DOI: 10.7326/M17-0859. PMID: 28828493. Available from: http://annals.org/article.aspx?doi=10.7326/M17-0859

Smith SG, Wardle J, Atkin W, Raine R, McGregor LM, Vart G, et al. **Reducing the socioeconomic gradient in uptake of the NHS bowel cancer screening Programme using a simplified supplementary information leaflet: a cluster-randomised trial**. BMC Cancer. 2017;17(1):543. DOI: 10.1186/s12885-017-3512-1. Available from: https://doi.org/10.1186/s12885-017-3512-1

Uptake of colorectal cancer screening is low in the English NHS Bowel Cancer Screening Programme (BCSP). Participation in screening is strongly associated with socioeconomic status. The aim of this study was to determine whether a supplementary leaflet providing the `gist' of guaiac-based Faecal Occult Blood test (gFOBt) screening for colorectal cancer could reduce the socioeconomic status (SES) gradient in uptake in the English NHS BCSP.

Kiran T, Glazier RH, Moineddin R, Gu S, Wilton AS, Paszat L. **The Impact of a Population-Based Screening Program on Income- and Immigration-Related Disparities in Colorectal Cancer Screening**. Cancer Epidemiol Biomarkers Prev. 2017;26(9):1401 LP-1410. Available from: http://cebp.aacrjournals.org/content/26/9/1401.
Conclusions: Introduction of a population-based screening program promoting FOBT for colorectal cancer was associated with only modest improvements in immigration and income-related disparities.Impact: Reducing immigration and income-related disparities should be a focus for future research and policy work. Disparities in Ontario seem to be driven by a higher uptake of colonoscopy among more advantaged groups.

Derbyshire E, Hungin P, Nickerson C, Rutter MD. **Post-polypectomy bleeding in the English National Health Service Bowel Cancer Screening Programme**. Endoscopy. 28.07.2017. 2017;49(9):899–908. DOI: 10.1055/s-0043-113442.

Gies A, Cuk K, Schrotz-King P, Brenner H. **Direct Comparison of Diagnostic Performance of 9 Quantitative Fecal Immunochemical Tests for Colorectal Cancer Screening.** Gastroenterology. 2017 [cited 2017 Nov 15]; DOI: 10.1053/j.gastro.2017.09.018. PMID: 28958859. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0016508517361772

CONCLUSIONS Apparent heterogeneity in diagnostic performance of quantitative FITs can be overcome to a large extent by adjusting thresholds to yield defined levels of specificity or positivity rates. Rather than simply using thresholds recommended by the manufacturer, screening programs should choose thresholds based on intended levels of specificity and manageable positivity rates.

Hadjipetrou A, Anyfantakis D, Galanakis CG, Kastanakis M, Kastanakis S. **Colorectal**

cancer, screening and primary care: A mini literature review. World J Gastroenterol. 2017 [cited 2017 Nov 15];23(33):6049–58. DOI: 10.3748/wjg.v23.i33.6049. PMID: 28970720. Available from: http://www.wjgnet.com/1007-9327/full/v23/i33/6049.htm
Herein, we review the main topics of CRC in the current literature, in order to better understand its pathogenesis, risk and protective factors, as well as screening techniques. Furthermore, we discuss preventive and screening policies to combat CRC and the crucial role served by PCPs in their successful implementation. Relevant articles were identified through electronic searches of MEDLINE and through manual searches of reference lists.

Solé Llop ME, Cano Del Pozo M, García Montero J-I, Carrera-Lasfuentes P, Lanas Á. **[Colorectal cancer screening programme in Aragon (Spain): preliminary results].** Gac Sanit. 2017 [cited 2017 Nov 15]; DOI: 10.1016/j.gaceta.2017.05.014. PMID: 28784304. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0213911117301760

CONCLUSION The indicator analysis of the ongoing programme suggests the programme is being implemented correctly in our community.

■ Cribado de cáncer colorrectal - equidad

Rat C, Pogu C, Le Donné D, Latour C, Bianco G, Nanin F, Cowppli-Bony A, Gaultier A, Nguyen JM. **Effect of Physician Notification Regarding Nonadherence to Colorectal Cancer Screening on Patient Participation in Fecal Immunochemical Test Cancer Screening: A Randomized Clinical Trial**. JAMA. 2017 Sep 5;318(9):816-824. doi: 10.1001/jama.2017.11387. PubMed PMID: 28873160.
Conclusions and Relevance: Providing French GPs caring for adults at average risk of CRC with a list of their patients who were not up-to-date with their CRC screening resulted in a small but significant increase in patient participation in FIT screening at 1 year compared with patients who received usual care. Providing GPs with generic reminders about regional rates of CRC screening did not increase screening rates compared with usual care.

Hornbrook MC, Goshen R, Choman E, O'Keeffe-Rosetti M, Kinar Y, Liles EG, Rust KC. **Early Colorectal Cancer Detected by Machine Learning Model Using Gender, Age, and Complete Blood Count Data**. Dig Dis Sci. 2017 Oct;62(10):2719-2727. doi: 10.1007/s10620-017-4722-8. Epub 2017 Aug 23. Erratum in: Dig Dis Sci. 2017 Nov 27;:. PubMed PMID: 28836087.
CONCLUSIONS: ColonFlag® identifies individuals with tenfold higher risk of undiagnosed colorectal cancer at curable stages (0/I/II), flags colorectal tumors 180-360 days prior to usual clinical diagnosis, and is more accurate at identifying right-sided (compared to left-sided) colorectal cancers.

Pang H, Cataldi M, Allseits E, Ward-Peterson M, de la Vega PR, Castro G, Acuña JM. **Examining the association between possessing a regular source of healthcare and adherence with cancer screenings among Haitian households in Little Haiti, Miami-**

Dade County, Florida. Medicine (Baltimore). 2017 Aug;96(32):e7706. doi: 10.1097/MD.0000000000007706. PubMed PMID: 28796056; PubMed Central PMCID: PMC5556222.
Our study explored adherence with multiple cancer screenings. We found a strong association between possessing a regular source of care and adherence with colorectal cancer screening and mammogram adherence. Targeted approaches to improving access to regular care may improve adherence to cancer screening adherence among this unique immigrant population.

Cole H, Thompson HS, White M, Browne R, Trinh-Shevrin C, Braithwaite S, Fiscella K, Boutin-Foster C, Ravenell J. **Community-Based, Preclinical Patient Navigation for Colorectal Cancer Screening Among Older Black Men Recruited From Barbershops: The MISTER B Trial**. Am J Public Health. 2017 Sep;107(9):1433-1440. doi: 10.2105/AJPH.2017.303885. Epub 2017 Jul 20. PubMed PMID: 28727540; PubMed Central PMCID: PMC5551599.
CONCLUSIONS: Telephone-based preclinical patient navigation has the potential to be effective for older Black men. Our results indicate the importance of community-based health interventions for improving health among minority men.

Partin MR, Gravely AA, Burgess JF Jr, Haggstrom DA, Lillie SE, Nelson DB, Nugent SM, Shaukat A, Sultan S, Walter LC, Burgess DJ. **Contribution of patient, physician, and environmental factors to demographic and health variation in colonoscopy follow-up for abnormal colorectal cancer screening test results**. Cancer. 2017 Sep 15;123(18):3502-3512. doi: 10.1002/cncr.30765. Epub 2017 May 11. PubMed PMID: 28493543; PubMed Central PMCID: PMC5589505.
CONCLUSIONS: In the VHA, blacks are more likely to receive colonoscopy follow-up for positive FOBT/FIT results than whites, and follow-up rates markedly decline with advancing age and comorbidity burden. Patient and physician behaviors explain race variation in follow-up rates and contribute to variation by age and comorbidity burden.

Rice K, Gressard L, DeGroff A, Gersten J, Robie J, Leadbetter S, Glover-Kudon R, Butterly L. **Increasing colonoscopy screening in disparate populations: Results from an evaluation of patient navigation in the New Hampshire Colorectal Cancer Screening Program.** Cancer. 2017 Sep 1;123(17):3356-3366. doi: 10.1002/cncr.30761. Epub 2017 May 2. PubMed PMID: 28464213.
CONCLUSIONS: PN appears to be effective for improving colonoscopy screening completion and quality in the disparate populations most in need of intervention. To the best of our knowledge, the results of the current study demonstrate some of the strongest evidence for the effectiveness of PN to date, and highlight its value for public health.
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Cribado de cáncer de pulmón - general

Lococo F, Cardillo G, Veronesi G. **Does a lung cancer screening programme promote smoking cessation?** Thorax. 2017 [cited 2017 Nov 15];72(10):870–1. DOI: 10.1136/thoraxjnl-2017-210621. PMID: 28747323. Available from: http://thorax.bmj.com/lookup/doi/10.1136/thoraxjnl-2017-210621

Tong BC. **Lung cancer screening: No more excuses.** J Thorac Cardiovasc Surg. 2017 [cited 2017 Nov 15]; DOI: 10.1016/j.jtcvs.2017.08.090. PMID: 28942978. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0022522317318536

Triplette M, Kross EK, Mann BA, Elmore JG, Slatore CG, Shahrir S, et al. **An Assessment of Primary Care and Pulmonary Provider Perspectives on Lung Cancer Screening.** Ann Am Thorac Soc. 2017 [cited 2017 Nov 15];AnnalsATS.201705-392OC. DOI: 10.1513/AnnalsATS.201705-392OC. PMID: 28933940. Available from: http://www.atsjournals.org/doi/10.1513/AnnalsATS.201705-392OC

CONCLUSIONS Providers endorsed the benefits of LCS, but there are limitations in provider knowledge of key screening components. The most frequently reported barriers to screening represent a lack of clinical time or resources to address lung cancer screening in clinical practice. Facilitators for nodule management as well as point-of-care referral materials may be helpful in reducing knowledge gaps and the clinical burden of referral. These are all modifiable factors, which could be addressed to increase screening referral. Differences in attitudes and barriers by specialty should also be considered to optimize screening impleme…

Brenner AT, Cubillos L, Birchard K, Doyle-Burr C, Eick J, Henderson L, et al. **Improving the Implementation of Lung Cancer Screening Guidelines at an Academic Primary Care Practice.** J Healthc Qual. 2017 [cited 2017 Nov 15];1. DOI: 10.1097/JHQ.0000000000000089. PMID: 28885238. Available from: http://insights.ovid.com/crossref?an=01445442-900000000-99847

Physicians interacted with the VBR in approximately 30% of opportunities for use. Further work is needed to better understand how to systematically provide appropriate LCS in primary care environments.

Robles AI, Harris CC. **Editorial: Lung Cancer Field Cancerization: Implications for Screening by Low-Dose Computed Tomography**. JNCI J Natl Cancer Inst. 2017;109(7):djw328-djw328. Available from: http://dx.doi.org/10.1093/jnci/djw328

Taylor J, Manos D, Schmidt H, Lévesque M-H, McInnis MC. **Canadian Association of Radiologists: Guide on Computed Tomography Screening for Lung Cancer.** Can Assoc Radiol J. 2017 [cited 2017 Aug 7];68(3):334–41. DOI: 10.1016/j.carj.2017.01.002. PMID: 28655431. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0846537117300098

Paci E, Puliti D, Lopes Pegna A, Carrozzi L, Picozzi G, Falaschi F, et al. **Mortality, survival and incidence rates in the ITALUNG randomised lung cancer screening trial.** Thorax. 2017 [cited 2017 Aug 7];72(9):thoraxjnl-2016-209825. DOI: 10.1136/thoraxjnl-2016-209825. PMID: 28377492. Available from:

http://thorax.bmj.com/lookup/doi/10.1136/thoraxjnl-2016-209825

CONCLUSIONS Despite the lack of statistical significance, the ITALUNG trial outcomes suggest that LDCT screening could reduce LC and overall mortality. Moreover, the comparison of the number of LC cases diagnosed in the two groups does not show overdiagnosis after an adequate follow-up period. A pooled analysis of all European screening trials is advocated to assess the benefit-to-harm ratio of LDCT screening and its implementation in public health settings.

Carter-Harris L, Gould MK. **Multilevel Barriers to the Successful Implementation of Lung Cancer Screening: Why Does It Have to Be So Hard?** Ann Am Thorac Soc. 2017 [cited 2017 Nov 15];14(8):1261–5. DOI: 10.1513/AnnalsATS.201703-204PS. PMID: 28541749. Available from: http://www.atsjournals.org/doi/10.1513/AnnalsATS.201703-204PS

The U.S. Preventive Services Task Force recommends lung cancer screening with low-dose computed tomography for long-term current and former smokers. However, lung cancer screening and its implementation are a complex issue. Screening has associated risks and potential harms that complicate the decision to screen for the patient, add to the already time-constrained clinical encounter for the provider, and present logistical and sociopolitical challenges in creating and implementing lung cancer screening programs in the health care system. As lung cancer screening is more widely implemented in the United States, it is critical for those in the health care system to be cognizant of potential barriers to effective screening implementation at the patient, provider, and system levels when designing effective support interventions, as well as to proactively address potential impediments to this new screening option. This paper presents perspectives on these multilevel barriers to lung cancer screening.
Callister ME, Janes SM. **Defining the path: lung cancer CT screening in Europe.** Thorax. 2017 [cited 2017 Nov 15];72(9):778–9. DOI: 10.1136/thoraxjnl-2017-210268. PMID: 28724640. Available from: http://thorax.bmj.com/lookup/doi/10.1136/thoraxjnl-2017-210268

Pinsky PF, Bellinger CR, Miller DP. **False-positive screens and lung cancer risk in the National Lung Screening Trial: Implications for shared decision-making**. J Med Screen. SAGE Publications; 2017;969141317727771. DOI: 10.1177/0969141317727771. Available from: https://doi.org/10.1177/0969141317727771

ConclusionThese findings indicate a need for personalized low-dose computed tomography lung cancer screening decision aids to accurately convey the benefits to harm trade-off.

Gesthalter YB, Koppelman E, Bolton R, Slatore CG, Yoon SH, Cain HC, et al. **Evaluations of Implementation at Early-Adopting Lung Cancer Screening Programs: Lessons Learned.** Chest. 2017 [cited 2017 Nov 15];152(1):70–80. DOI: 10.1016/j.chest.2017.02.012. PMID: 28223153. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0012369217302222

CONCLUSIONS Lung cancer screening implementation is a complex undertaking requiring coordination at many levels. The insight gained from evaluation of these early-adopting programs may inform subsequent design and implementation of LCS programs.
Hoffman RM, Sanchez R. **Lung Cancer Screening.** Med Clin North Am. 2017 [cited 2017 Nov 15];101(4):769–85. DOI: 10.1016/j.mcna.2017.03.008. PMID: 28577626. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0025712517300317

Lung cancer is the leading cause of cancer death in the United States. More than 80% of these deaths are attributed to tobacco use, and primary prevention can effectively reduce the cancer burden. The National Lung Screening Trial showed that low-dose computed tomography (LDCT) screening could reduce lung cancer mortality in high-risk patients by 20% compared with chest radiography. The US Preventive Services Task Force recommends annual LDCT screening for persons aged 55 to 80 years with a 30-pack-year smoking history, either currently smoking or having quit within 15 years.

Seder CW. **Lung cancer screening is here to stay, but does it pay?** J Thorac Cardiovasc Surg. 2017 [cited 2017 Nov 15]; DOI: 10.1016/j.jtcvs.2017.09.006. PMID: 28964494. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0022522317318871

Shojaee S, Vachani A, Nana-Sinkam P. **The Financial Implications of Lung Cancer Screening: Is It Worth It?** J Thorac Oncol. 2017 [cited 2017 Nov 15];12(8):1177–9. DOI: 10.1016/j.jtho.2017.06.016. PMID: 28748812. Available from: http://linkinghub.elsevier.com/retrieve/pii/S1556086417304690

Morgan L, Choi H, Reid M, Khawaja A, Mazzone PJ. **The Frequency of Incidental Findings and Subsequent Evaluation in Low-Dose CT Scans for Lung Cancer Screening.** Ann Am Thorac Soc. 2017 [cited 2017 Aug 7];14(9):AnnalsATS.201612-1023OC. DOI: 10.1513/AnnalsATS.201612-1023OC. PMID: 28421812. Available from: http://www.atsjournals.org/doi/10.1513/AnnalsATS.201612-1023OC
CONCLUSIONS Clinically significant incidental findings on LDCT scans for lung cancer screening are common and their potential impact should be included in the shared decision making process. Screening programs should develop a standard approach for the evaluation of these findings, and consider the financial impact when seeking infrastructure support for screening program implementation

■ Cribado de cáncer de pulmón - equidad

Yousaf-Khan U, van der Aalst C, de Jong PA, Heuvelmans M, Scholten E, Walter J, Nackaerts K, Groen H, Vliegenthart R, Ten Haaf K, Oudkerk M, de Koning H**. Risk stratification based on screening history: the NELSON lung cancer screening study.** Thorax. 2017 Sep;72(9):819-824. doi: 10.1136/thoraxjnl-2016-209892. Epub 2017 Mar 30. PubMed PMID: 28360223.

CONCLUSIONS: Previous CT lung cancer screening results provides an opportunity for further risk stratifications of those who undergo lung cancer screening.

Cribado de cáncer de próstata - general

Hoffman RM, Volk RJ, Wolf AMD. **Making the grade: The newest US Preventive Services Task Force prostate cancer screening recommendation.** Cancer. 2017 [cited 2017 Nov 15];123(20):3875–8. DOI: 10.1002/cncr.30941. PMID: 28832967. Available from: http://doi.wiley.com/10.1002/cncr.30941

Tsodikov A, Gulati R, EM H, Al E. **Reconciling the effects of screening on prostate cancer mortality in the erspc and plco trials**. Ann Intern Med. 2017;167:449–55. DOI: 10.7326/M16-2586. Available from: http://dx.doi.org/10.7326/M16-2586

Conclusion:After differences in implementation and settings are accounted for, the ERSPC and PLCO provide compatible evidence that screening reduces prostate cancer mortality.Primary Funding Source:National Cancer Institute.

Cooperberg MR. **The New US Preventive Services Task Force; Draft Recommendation for Prostate Cancer Screening.** Eur Urol. 2017 [cited 2017 Aug 4];72(3):326–8. DOI: 10.1016/j.eururo.2017.05.011. PMID: 28535948. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0302283817304013

The US Preventive Services Task Force has issued a new draft guideline, with a "C" recommendation that men aged 55-69 yr should be informed about the benefits and harms of screening for prostate cancer, and offered prostate-specific antigen testing if they choose it. For men aged ≥70 yr, the recommendation remains "D", or "do not screen." This draft represents substantial progress in the right direction towards offering men a fair opportunity to discuss the risks and benefits of screening with their primary care providers. However, the evidence review underlying the draft remains fundamentally inadequate, leading to biased presentations of both benefits and harms of screening. The final guideline and future revisions should reflect formal engagement with subject matter experts to optimize the advise given to men and their physicians.

JC H, Nguyen P, Mao J, Al E. **Increase in prostate cancer distant metastases at diagnosis in the united states**. JAMA Oncol. 2017;3(5):705–7. Available from: http://dx.doi.org/10.1001/jamaoncol.2016.5465

Following the introduction of prostate-specific antigen (PSA) screening in the early 1990s, there has been a 50% decline in prostate cancer–specific mortality and more than a 70% decline in the incidence of metastases at diagnosis.1 Given the recent declines in PSA screening and prostate cancer incidence, we sought to assess the effect of these changes on prostate cancer presentation.

Barry MJ, Simmons LH. **Prevention of Prostate Cancer Morbidity and Mortality:**

Primary Prevention and Early Detection. Med Clin North Am. 2017 [cited 2017 Nov 15];101(4):787–806. DOI: 10.1016/j.mcna.2017.03.009. PMID: 28577627. Available from: http://linkinghub.elsevier.com/retrieve/pii/S0025712517300329

More than any other cancer, prostate cancer screening with the prostate-specific antigen (PSA) tests increases the risk a man will have to face a diagnosis of prostate cancer. The best evidence from screening trials suggests a small but finite benefit from prostate cancer screening in terms of prostate cancer-specific mortality, about 1 fewer prostate cancer death per 1000 men screened over 10 years. The more serious harms of prostate cancer screening, such as erectile dysfunction and incontinence, result from cancer treatment with surgery or radiation, particularly for men whose PSA-detected cancers were never destined to cause morbidity or mortality.

Dahm P. **Future of screening for prostate cancer**. BMJ. 2017 [cited 2017 Nov 15];j4200. DOI: 10.1136/bmj.j4200. Available from: http://www.bmj.com/lookup/doi/10.1136/bmj.j4200

Vickers AJ. **Prostate Cancer Screening: Time to Question How to Optimize the Ratio of Benefits and Harms.** Ann Intern Med. 2017 [cited 2017 Nov 15];167(7):509–10. DOI: 10.7326/M17-2012. PMID: 28869975. Available from: http://annals.org/article.aspx?doi=10.7326/M17-2012

Gaylis FD, Choi JE, Hamilton Z, Dato P, Cohen E, Calabrese R, et al. **Change in prostate cancer presentation coinciding with USPSTF screening recommendations at a community-based urology practice.** Urol Oncol. 2017 [cited 2017 Nov 15];35(11):663.e1-663.e7. DOI: 10.1016/j.urolonc.2017.06.059. PMID: 28736250. Available from: http://linkinghub.elsevier.com/retrieve/pii/S1078143917303447

CONCLUSIONS Our findings demonstrate a decrease in elevated PSA referrals, increase in PSA at the time of referral, decrease in detection of low-risk disease, and increase in detection of intermediate-/high-risk disease in a high-volume, multisite, community-based urology practice, coinciding with the United States Preventative Services Task Force recommendations against PSA screening.

Saarimäki L, Hugosson J, Tammela TL, Carlsson S, Talala K, Auvinen A. **Impact of Prostatic-specific Antigen Threshold and Screening Interval in Prostate Cancer Screening Outcomes: Comparing the Swedish and Finnish European Randomised Study of Screening for Prostate Cancer Centres.** Eur Urol Focus. 2017 [cited 2017 Nov 15]; DOI: 10.1016/j.euf.2017.07.007. PMID: 28803925. Available from: http://linkinghub.elsevier.com/retrieve/pii/S240545691730192X

CONCLUSIONS The small number of deaths among cases that would have been potentially detectable in Finland with the Swedish protocol (or those that would have been missed in Sweden with the Finnish approach) is unlikely to explain the differences in mortality in this long of a follow-up. PATIENT SUMMARY A prostate-specific antigen threshold of 3ng/ml versus 4ng/ml or a screening interval of 2 yr instead of 4 yr is unlikely to explain the larger mortality reduction achieved in Sweden compared with

Finland.

CR T, Jr, Shyr Y. **Determining penetration of prostate-specific antigen screening recommendations**. JAMA Oncol. 2017;3(5):707. Available from: http://dx.doi.org/10.1001/jamaoncol.2016.5978

The controversy regarding the impact of prostate-specific antigen (PSA) testing on outcomes for men diagnosed with cancer has intensified since the 2008 US Preventive Services Task Force recommendation against regular PSA testing for men 75 years or older.1 This has been compounded by a wider preliminary and then final (grade D) recommendation against regular PSA screening for all men.2 In this issue of JAMA Oncology, Hu et al3 report that when analyzing the Surveillance, Epidemiology, and End Results (SEER) database between 2004 and 2013, there may be an increase in the proportion of distant metastatic disease in older men after 2011. An earlier publication in this journal by Jemal et al4 suggested that distance metastatic disease has not appreciably changed over the period 2012 to 2013. It is possible that these seemingly contradictory results are simply a statistical random variation of incidence that can change over time depending on the frequency of measurement as well as the variation in staging definition. In the case of these 2 articles, while both analyze SEER data, Summary Staging (from the SEER Summary Staging Manual – 2000: Codes and Coding Instructions) was used by Jemal et al, while the current article by Hu et al used Collaborative Staging (from the SEER Training Modules; https://training.seer.cancer.gov/collaborative/intro/). The impact on mortality from screening is not well defined. Hence, clinicians will need to be cautious in their interpretation of the screening as well treatment guidelines for the individual patient in front of them

■ Cribado de cáncer de próstata - equidad

Vetterlein MW, Löppenberg B, Karabon P, Dalela D, Jindal T, Sood A, Chun FK, Trinh QD, Menon M, Abdollah F**. Impact of travel distance to the treatment facility on overall mortality in US patients with prostate cancer**. Cancer. 2017 Sep 1;123(17):3241-3252. doi: 10.1002/cncr.30744. Epub 2017 May 4. PubMed PMID: 28472547.

CONCLUSIONS: An OM benefit was observed among men who traveled long distances for PCa treatment, which is likely to be a reflection of centralization of care and more favorable patient-level characteristics in those travelers. Furthermore, the survival benefit mediated by long travel distances appears to be influenced by baseline socioeconomic, treatment, and facility-level factors.

Misra-Hebert AD, Hu B, Klein EA, Stephenson A, Taksler GB, Kattan MW, Rothberg MB. **Prostate cancer screening practices in a large, integrated health system: 2007-2014.**

BJU Int. 2017 Aug;120(2):257-264. doi: 10.1111/bju.13793. Epub 2017 Feb 26. PubMed PMID: 28139034; PubMed Central PMCID: PMC5515687.

CONCLUSIONS: Prostate cancer screening declined from 2007 to 2014 even in higher-risk groups and follow-up screening rates were not related to previous PSA level. However, rates of first prostate biopsy in men who were screened with a PSA test were higher for men with an increased risk of prostate cancer in later years. Variation in PSA testing was noted among PCPs. Future work should further explore sources of variation in screening practices and implementation of risk-based strategies for prostate cancer screening in primary care.

Cribado de otros cánceres y general sobre cribado - general

Menon U, McGuire AJ, Raikou M, Ryan A, Davies SK, Burnell M, et al. **The cost-effectiveness of screening for ovarian cancer: results from the UK Collaborative Trial of Ovarian Cancer Screening (UKCTOCS)**. Br J Cancer. The Author(s); 2017 [cited 2017 Nov 15];117(5):619–27. DOI: 10.1038/bjc.2017.222. PMID: 28742794. Available from: http://www.nature.com/doifinder/10.1038/bjc.2017.222

Conclusion: Analysis suggests that, after accounting for the lead time required to establish full mortality benefits, a national OCS programme based on the MMS strategy quickly approaches the current NICE thresholds for cost-effectiveness when extrapolated out to lifetime as compared with the within-trial ICER estimates. Whether MMS could be recommended on economic grounds would depend on the confirmation and size of the mortality benefit at the end of an ongoing follow-up of the UKCTOCS cohort.

Rochman S. **Thyroid Cancer's Overdiagnosis Problem**. JNCI J Natl Cancer Inst. 2017;109(7):djx153-djx153. Available from: http://dx.doi.org/10.1093/jnci/djx153

Overdiagnosis—finding cancers that would never go on to do any harm—is another aspect of cancer screening that works, when doctors get good at detecting a cancer early and saving people's lives. USPSTF's first recommendation against screening for thyroid cancer, published in 1996, said no evidence existed that screening improved outcomes. An update, published in the Journal of the American Medical Association on May 9, 2017 (doi:10.1001/jama.2017.4011), also advised against routine screening. Three thyroid cancer statistics that indicate overdiagnosis support that conclusion: increased incidence, little change in mortality, and a 5-year overall survival rate of 98.1%

Haymart MR, Miller DC, Hawley ST. **Active Surveillance for Low-Risk Cancers — A Viable Solution to Overtreatment?** N Engl J Med. Massachusetts Medical Society; 2017;377(3):203–6. DOI: 10.1056/NEJMp1703787. Available from: http://dx.doi.org/10.1056/NEJMp1703787

Bell NR, Grad R, Dickinson JA, Singh H, Moore AE, Kasperavicius D, et al. **Better decision making in preventive health screening**. Can Fam Physician. 2017;63(7):521 LP-524. Available from: http://www.cfp.ca/content/63/7/521.abstract

Driedger SM, Annable G, Brouwers M, Turner D, Maier R. **Can you un-ring the bell? A qualitative study of how affect influences cancer screening decisions**. BMC Cancer. 2017;17(1):647. DOI: 10.1186/s12885-017-3596-7. Available from: https://doi.org/10.1186/s12885-017-3596-7

The belief that early detection is the best protection against cancer underlies cancer screening. Emerging research now suggests harms associated with early detection may sometimes outweigh the benefits. Governments, cancer agencies, and organizations that publish screening guidelines have found it is difficult to ``un-ring the bell'' on the message that ``early detection is your best protection'' because of its widespread communication and enduring resonance. This study explores affective factors---and their interplay with relevant analytical factors---in public/laypersons' decision making about cancer screening.

Basu P, Ponti A, Anttila A, Ronco G, Senore C, Vale DB, et al. **Status of implementation and organization of cancer screening in the European Union Member States - summary results from the second European screening report.** Int J cancer. 2017 [cited 2017 Sep 27]; DOI: 10.1002/ijc.31043. PMID: 28940326. Available from: http://doi.wiley.com/10.1002/ijc.31043

Substantial improvement in screening implementation using population-based approach was documented. Among the age-eligible women, 94.7% were residents of Member States implementing or planning population-based breast cancer screening in 2016, compared to 91.6% in 2007. The corresponding figures for cervical cancer screening were 72.3% and 51.3% in 2016 and 2007 respectively. Most significant improvement was documented for colorectal cancer screening with roll-out ongoing or completed in 17 Member States in 2016, compared to only five in 2007. So the access to population-based screening increased to 72.4% of the age-eligible populations in 2016 as opposed to only 42.6% in 2007. The invitation coverage was highly variable, ranging from 0.2%-111% for breast cancer, 7.6%-105% for cervical cancer and 1.8%-127% for colorectal cancer in the target populations. In spite of the considerable progress, much work remains to be done to achieve optimal effectiveness. Continued monitoring, regular feedbacks and periodic reporting are needed to ensure the desired impacts of the programmes. This article is protected by copyright. All rights reserved.

Chad-Friedman E, Coleman S, Traeger LN, Pirl WF, Goldman R, Atlas SJ, et al. **Psychological distress associated with cancer screening: A systematic review.** Cancer. 2017 [cited 2017 Nov 10];123(20):3882–94. DOI: 10.1002/cncr.30904. PMID: 28833054. Available from: http://doi.wiley.com/10.1002/cncr.30904

CONCLUSIONS Evidence of low distress during the time of cancer screening suggests that distress might not be a widespread barrier to screening among adults who undergo screening. However, more studies are needed using validated measures of

distress to further understand the extent to which screening may elicit psychological distress and impede adherence to national screening recommendations.

Grad R, Légaré F, Bell NR, Dickinson JA, Singh H, Moore AE, et al. **Shared decision making in preventive health care**. Can Fam Physician. 2017;63(9):682 LP-684. Available from: http://www.cfp.ca/content/63/9/682.abstract

Parker L, Carter S, Williams J, Pickles K, Barratt A. **Avoiding harm and supporting autonomy are under-prioritised in cancer-screening policies and practices**. Eur J Cancer. 2017;85(Supplement C):1–5. DOI: https://doi.org/10.1016/j.ejca.2017.07.056. Available from: http://www.sciencedirect.com/science/article/pii/S0959804917312054

We recommend the following: 1. Committees should be required to discern and discuss the values of individual members and the wider public; 2. Committee membership and voting procedures should be more carefully constructed to reduce the likelihood that committee members' interests are placed above public interests; 3. Committees should explain their policy decisions with reference to values as well as evidence, so that values considered in decision-making can be interrogated and challenged if necessary. These changes would increase the likelihood that cancer-screening policy decisions are in keeping with public views about what is important.

Phallen J, Sausen M, Adleff V, Leal A, Hruban C, White J, et al. **Direct detection of early-stage cancers using circulating tumor DNA**. Sci Transl Med. 2017;9(403). Available from: http://stm.sciencemag.org/content/9/403/eaan2415.
Analyses of mutations in the circulation revealed high concordance with alterations in the tumors of these patients. In patients with resectable colorectal cancers, higher amounts of preoperative circulating tumor DNA were associated with disease recurrence and decreased overall survival. These analyses provide a broadly applicable approach for noninvasive detection of early-stage tumors that may be useful for screening and management of patients with cancer

NOTA BIBLIOGRÁFICA
RED DE PROGRAMAS DE CRIBADO DE CÁNCER

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