Appendix 1

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Appendix 1, as supplied by the authors. Appendix to: Persaud N, Sapir A, Woods H, et al. Preventive care recommendations to promote health equity. *CMAJ* 2023. doi: 10.1503/cmaj.230237.

1. Colorectal Cancer Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Screening for colon cancer reduces colorectal cancer mortality and is not found to be associated with any harms	

Certainty of the Evidence	High

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
People experiencing disadvantages are less likely to be screened for colorectal cancer. More resource intensive reminders about colorectal cancer screening can improve screening rates, particularly in low-screened groups.	

1.1 – Colonoscopy vs. no screening

PICO

Population: Asymptomatic screening populations of individuals 40 years or older who were either at average risk for CRC or not selected for inclusion based on CRC risk factors
Intervention: Colonoscopy
Comparator: No screening

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**	**Certainty of the Evidence**	**Plain language summary**
CRC mortality	Hazard ratio: 0.32 (CI 95% 0.24 - 0.45) Based on data from 88902 participants in 1 studies[1] Follow up 24 years	-	Low	The CRC-specific mortality rate was lower in people who self-reported at least 1 screening colonoscopy compared with those who had never had a screening colonoscopy. Screening colonoscopies were associated with lower CRC mortality from both distal and proximal cancers.
CRC incidence	Relative risk: 0.95 (CI 95% 0.9 - 1.0) Based on data from 38025 participants in 1 studies[2] Follow up 8 years	-	Low	A study conducted among Medicare beneficiaries found that people aged 70 to 74 years who underwent a screening colonoscopy had a lower 8-year standardized risk for

				CRC than those who did not undergo the test. Relative risk calculated by us.

Footnotes
1. Systematic review [5].
2. Systematic review [5].Supporting references [5].

References
[5] Lin JS, Perdue LA, Henrikson NB, Bean SI, Blasi PR : Screening for Colorectal Cancer: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(19):1978-1998

1.2 – Flexible sigmoidoscopy vs. no screening

PICO
Population: Asymptomatic screening populations of individuals 40 years or older who were either at average risk for CRC or not selected for inclusion based on CRC risk factors
Intervention: Flexible sigmoidoscopy
Comparator: No screening

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**	**Certainty of the Evidence**	**Plain language summary**
Colorectal cancer mortality	Rate ratio: 0.74 (CI 95% 0.68 - 0.8) Based on data from 458002 participants in 4 studies[1] Follow up 11-17 years	-	High	Based on 4 RCTs that used intention-to-screen analyses, 1- or 2-time flexible sigmoidoscopy was consistently associated with a decrease in CRC-specific mortality (with 10 to 17 fewer CRC deaths per 100 000 person-years) when compared with no screening at 11 to 17 years of follow-up.
CRC incidence	Relative risk: 0.95 (CI 95% 0.9 - 1.0) Based on data from 38025 participants in 1 studies[2] Follow up 8 years	-	Low	A study conducted among Medicare beneficiaries found that people aged 70 to 74 years who underwent a screening colonoscopy had a lower 8-year standardized risk for CRC than those who did not undergo the test. Relative risk calculated by us.

Footnotes
1. Systematic review [5] .
2. Systematic review [5] .

References
[5] Lin JS, Perdue LA, Henrikson NB, Bean SI, Blasi PR : Screening for Colorectal Cancer: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(19):1978-1998

1.3 – Guaiac fecal occult blood test vs. no screening

PICO
Population: Asymptomatic screening populations of individuals 40 years or older who were either at average risk for CRC or not selected for inclusion based on CRC risk factors
Intervention: Guaiac fecal occult blood test
Comparator: No screening

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Colorectal cancer mortality	Relative risk: 0.91 (CI 95% 0.84 - 0.98) Based on data from 419966 participants in 5 studies[1] Follow up 11-30 years	-	High	Based on 5 RCTs that used intention-to-screen analyses, biennial screening with Hemoccult II (Beckman Coulter) was associated with a reduction of CRC-specific mortality compared with no screening after 2 to 9 rounds of screening at 11 to 30 years of follow-up (relative risk [RR], 0.91 [95% CI, 0.84-0.98] at 19.5 years; RR, 0.78 [95% CI, 0.65-0.93] at 30 years).
CRC incidence	Relative risk: 0.95 (CI 95% 0.9 - 1.0) Based on data from 38025 participants in 1 studies[2] Follow up 8 years	-	Low	A study conducted among Medicare beneficiaries found that people aged 70 to 74 years who underwent a screening colonoscopy had a lower 8-year standardized risk for CRC than those who did not undergo the test. Relative risk calculated by us.

Footnotes

1. Systematic review [5] .
2. Systematic review [5] .

References
[5] Lin JS, Perdue LA, Henrikson NB, Bean SI, Blasi PR : Screening for Colorectal Cancer: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(19):1978-1998

1.4 – Fecal immunochemical test vs. no screening

PICO
Population: Asymptomatic screening populations of individuals 40 years or older who were either at average risk for CRC or not selected for inclusion based on CRC risk factors
Intervention: Fecal immunochemical test
Comparator: No screening

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Colorectal cancer mortality	Rate ratio: 0.9 (CI 95% 0.84 - 0.95) Based on data from participants in 1 studies[1] Follow up 6 years	-	Low	1 to 3 rounds of screening with a biennial FIT (OC-Sensor [Eiken Chemical] or HM JACK [Kyowa Medex]) were associated with lower CRC mortality at 6 years' follow-up, compared with no screening

Footnotes
1. Systematic review [5] .

References
[5] Lin JS, Perdue LA, Henrikson NB, Bean SI, Blasi PR : Screening for Colorectal Cancer: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(19):1978-1998

1.5 – Equity outcomes: colon cancer surgery by race

PICO
Population: Black and white people with colorectal cancer
Intervention: Equity outcomes - colon cancer surgery by race
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Receipt of surgery and black race	Odds ratio: 0.75 (CI 95% 0.6 - 0.73) Based on data from 1110670	-	High	Black patients with colorectal cancer were less likely to undergo surgery when

	participants in 16 studies[1]			compared to white patients. In the subset analysis by stage, Black patients with stages I-III disease (OR 0.69, 95% CI 0.60–0.79) and those with stage IV disease (OR 0.76, 95% CI 0.62–0.93) were less likely to undergo surgery than white patients.
CRC incidence	Relative risk: 0.95 (CI 95% 0.9 - 1.0) Based on data from 38025 participants in 1 studies[2] Follow up 8 years	-	Low	A study conducted among Medicare beneficiaries found that people aged 70 to 74 years who underwent a screening colonoscopy had a lower 8-year standardized risk for CRC than those who did not undergo the test. Relative risk calculated by us.
Receipt of laparoscopic versus open colorectal cancer surgery and Black race	Odds ratio: 0.91 (CI 95% 0.88 - 0.94) Based on data from participants in 3 studies[3]	-	-	In the pooled analysis, Black patients were less likely to receive laparoscopic versus open colorectal cancer surgery when compared to white patients. In the subset analysis by stage, Black patients with stage I-III disease were less likely to receive laparoscopic versus open colorectal cancer surgery when compared to white patients (OR 0.91, 95% CI 0.88–0.94). There was limited between-study heterogeneity presented in the three publications which assessed the receipt of laparoscopic versus open colorectal cancer surgery and Black race (I2 = 0.0%; p = 0.977).

Footnotes
1. Systematic review [2] .
2. Systematic review [2] .
3. Systematic review [2] .

References
[2] Syvyk S, Roberts SE, Finn CB, Wirtalla C, Kelz R : Colorectal cancer disparities across the continuum of cancer care: A systematic review and meta-analysis. American journal of surgery 2022;

1.6 – Equity outcomes: colon cancer screening by immigration status

PICO
Population: Ontario residents aged 50 to 74 years
Intervention: Equity outcomes - colon cancer screening by immigration status
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Colon cancer screening non-adherence (recent immigrants vs Canadian-born)	Odds ratio: 3.73 (CI 95% 2.25 - 6.18) Based on data from 38299 participants in 1 studies[1]	-	Low	Recent immigrants were shown to have more than 3 times the odds of CRC screening nonadherence when compared to Canadian-born individuals.
Colon cancer screening non-adherence (long-term immigrants vs Canadian-born)	Odds ratio: 1.24 (CI 95% 1.13 - 1.26) Based on data from 38299 participants in 1 studies[2]	-	Low	Long-term immigrants had a statistically significant higher odds of CRC nonadherence compared to Canadian-born individuals.

Footnotes
1. Primary study [60] .
2. Primary study [60] .

References
[60] Moustaqim-Barrette A, Spinelli JJ, Kazanjian A, Dummer TJB : Impact on immigrant screening adherence with introduction of a population-based colon screening program in Ontario, Canada. Cancer medicine 2019;8(4):1826-1834

1.7 – Equity outcomes: colon cancer screening access in Indigenous populations

PICO
Population: First Nations, Métis and Hutterite women, aged 50 to 74 years in Alberta
Intervention: Equity outcomes - colon cancer screening access in Indigenous populations
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Screening uptake	Relative risk: 0.81 (CI 95% 0.78 - 0.83) Based on data from 8790 participants in 1 studies[1] Follow up 3 months	-	-	Compared to usual practice screen tests, screen Test-EACS significantly increased uptake of colorectal cancer screening (10.9% v. 22.5%) and the prevalence of women up to date with screening (37.3% to 48.7%).

Footnotes
1. Primary study [72], [71] Baseline/comparator Systematic review .

References
[71] Mema SC, Yang H, Elnitsky S, Jiang Z, Vaska M, Xu L : Enhancing access to cervical and colorectal cancer screening for women in rural and remote northern Alberta: a pilot study. CMAJ open 2017;5(4):E740-E745
[72] Bryant J, Patterson K, Vaska M, Chiang B, Letendre A, Bill L, Yang H, Kopciuk K : Cancer Screening Interventions in Indigenous Populations: A Rapid Review. Current oncology (Toronto, Ont.) 2021;28(3):1728-1743

1.8 – Equity outcomes: screening education and opportunistic screening

PICO
Population: Indigenous Populations in Canada
Intervention: Equity outcomes - screening education and opportunistic screening
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Screening uptake	Relative risk (CI 95% -) Based on data from 333 participants in 1 studies[1]	-	-	32% (106/333) of all age-eligible service participants who attended an appointment when colorectal screening was offered were given a fecal occult blood test kit. Reasons for refusal for the remaining age-eligible clients, when reasons were recorded in nursing notes for refusal, included having had a colonoscopy (making them ineligible) or self-

				reporting being up to date with screening.

Footnotes
1. Primary study [70], [72] .

References
[70] Chow S, Bale S, Sky F, Wesley S, Beach L, Hyett S, Heiskanen T, Gillis K-J, Paroschy Harris C : The Wequedong Lodge Cancer Screening Program: implementation of an opportunistic cancer screening pilot program for residents of rural and remote Indigenous communities in Northwestern Ontario, Canada. Rural and remote health 2020;20(1):5576
[72] Bryant J, Patterson K, Vaska M, Chiang B, Letendre A, Bill L, Yang H, Kopciuk K : Cancer Screening Interventions in Indigenous Populations: A Rapid Review. Current oncology (Toronto, Ont.) 2021;28(3):1728-1743

1.9 – Equity outcomes: colon cancer survival by neighbourhood-level income

PICO
Population: Adults aged 15-99 years diagnosed with colorectal cancer
Intervention: Equity outcomes - colon cancer survival by neighborhood-level income
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Survival rate	(CI 95% -) Based on data from 229934 participants in 1 studies[1]	-		Relative survival was significantly higher for higher (Q4 or Q5) compared to lower (Q1 or Q2) neighborhood-level income populations

Footnotes
1. Primary study [132] .

References
[132] Wang Y, Schwartz N, Young S, Klein-Geltink J, Truscott R : Comprehensive Cancer Survival by Neighborhood-Level Income in Ontario, Canada, 2006-2011. Journal of registry management 2020;47(3):102-112

2. Cervical Cancer Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Screening for cervical cancer increases early detection of cervical cancer across all screening methods. False positive rates and colposcopy rates are higher with high-risk HPV screening compared with cytology.	

Certainty of the Evidence	High

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Racialized women, those from low socioeconomic groups, and those with disabilities are significantly less likely to attend cervical cancer screening compared to the general population. HPV self-sampling test kits increase screening for and early detection of cervical cancer, particularly among disadvantaged women facing practical and personal barriers to screening.	

2.1 – hrHPV screening vs. cytology screening

PICO
Population: Women aged 21 years or older who have a cervix
Intervention: high-risk HPV (hrHPV) screening
Comparator: Cytology screening

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Cytology screening	Cytology screening		
Mild anxiety and depression[1]	Relative risk: 0.96 (CI 95% 0.7 - 1.31) Based on data from 1008 participants in 1 studies[2]	**228** per 1000	**219** per 1000	Moderate [3]	Women randomized to hrHPV testing were not more likely to have mild anxiety and depression compared to women screened with cytology.
		Difference: **9 fewer per 1000** (CI 95% 68 fewer - 71 more)			
Moderate/severe anxiety and depression[4]	Relative risk: 1.14 (CI 95% 0.65 - 2.02) Based on data from 1008 participants in 1 studies[5]	**55** per 1000	**61** per 1000	Moderate [6]	Women randomized to hrHPV testing were not more likely to have moderate/severe anxiety and depression compared to women screened with cytology.
		Difference: **8 more per 1000** (CI 95% 20 fewer - 52 more)			
Test positivity rate[7]	Based on data from 371859	In Round 1 of screening, test		-	Test positivity rates were consistently

	participants in 5 studies[8] Follow up 4-7 years	positivity ranged from 6.9% to 8.2% for primary hrHPV screening (intervention) compared with 3.4% to 6.9% for cytology (control). None of the trials reported test positivity rates for a second screening round.		higher in the hrHPV group across all 5 trials reporting on one round of screening.
CIN3+ detection rate[9]	Based on data from 232464 participants in 6 studies[10] Follow up 4-7 years	In round 1 of screening, CIN3+ detection rates ranged from 0.3% to 0.8% for primary hrHPV screening (intervention) compared with 0.1% to 0.4% for cytology (control), with RRs ranging from 1.61 (95% CI, 1.09-2.37) to 7.46 (95% CI, 1.02-54.66). Round 2 results, reported in only two trials, were similar between groups (RR Range, 0.22 [95% CI, 0.08-0.58]) to 0.42 [95% CI, 0.25-0.69]).	-	CIN3+ detection rates were consistently higher in the hrHPV group across all 6 trials reporting on one round of screening. Round two results, reported in only 2 trials, were similar between groups.
False positive rate[11]	Based on data from 175543 participants in 2 studies[12] Follow up 5-7 years	In Round 1 of screening, false-positive rates ranged from 6.6% to 7.4% for primary hrHPV screening (intervention) compared with 2.6% to 6.5% for cytology (control). None of the trials reported false positive rates for a second screening round.	-	False-positive rates were consistently higher in the hrHPV group across both trials reporting on one round of screening.
False negative rate[13]	Based on data from 252621 participants in 2 studies[14] Follow up 3-5 years	One trial found invasive cervical cancer among screen-negative women in 0.01% (5/57,135) of the hrHPV group	-	False-negative rate for invasive cervical cancer was slightly higher in the cytology group in 1 of the 2 trials reporting on

		(intervention) and 0.003% (2/61 241) of the cytology group (control) after 1 round of screening with 5 years of follow-up. One trial found no cases among screen-negative women in either group after 1 round of screening with 3.5 years of follow-up.		one round of screening.
Colposcopy referral rate	Based on data from 228690 participants in 6 studies[15] Follow up 4-7 years	In Round 1 of screening, colposcopy referrals ranged from 1.2% to 7.9% for primary hrHPV screening (intervention), compared with 1.1% to 3.6% for cytology alone (control). None of the trials reported colposcopy referral rates for a second screening round.	-	Colposcopy referral rates were consistently higher in the hrHPV group across all 6 trials reporting on one round of screening.

Footnotes

1. Anxiety and depression scores were measured using the Patient Health Questionnaire-4 (PHQ-4) for anxiety and depression. Multinomial logistic regression was used to estimate the relative risk of scoring mild vs. normal on anxiety and depression between the two screening groups.
2. Primary study [48] .
3. Risk of Bias: serious. Incomplete data (non-response bias: individuals who chose to answer the questionnaire may differ from non-responders);
4. Anxiety and depression scores were measured using the Patient Health Questionnaire-4 (PHQ-4) for anxiety and depression. Multinomial logistic regression was used to estimate the relative risk of scoring moderate/severe vs. normal on anxiety and depression between the two screening groups.
5. Primary study [48] .
6. Risk of Bias: serious. Incomplete data (non-response bias: individuals who chose to answer the questionnaire may differ from non-responders);
7. Test positivity was defined as the rate of test findings that would lead to a clinical action, based on the study protocol, such as colposcopy or more intensive follow-up (e.g., retest in 6 months).
8. Systematic review [1] Supporting references [25], primary study 1 - 7.9% (intervention) vs 3.4% (control). [37], primary study 4 - 8.1% (intervention) vs 3.5% (control). [51], primary study 1 - 2.26% (intervention) vs 2.18% (control). [28], primary study 3 - 6.9% (intervention) vs 6.7% (control). [27], primary study 2 - 8.0% (intervention) vs 6.9% (control).
9. Disease detection is measured through detection of CIN3+ cases. The RCTs and large observational cohort studies examined CIN3+ detection rates using hrHPV screening alone as the primary test (intervention) compared with screening with cytology as the primary test (control).
10. Systematic review [1] Supporting references [37], primary study 4 - RR 7.46 (95% CI 1.02-54.66). [28], primary study 3 - RR 1.64 (95% CI 1.30-2.06). [50], primary study 5 - RR 1.5 (95% CI 0.8-2.7). [25], primary study 1 - RR

2.92 (95% CI 1.97-4.34). [51], primary study 6 - RR 1.68 (95% CI, 1.21-2.35). [27], primary study 2 - RR 1.61 (95% CI 1.09-2.37).

11. False-positive rate was calculated as the number with a positive screening test result without diagnosis of CIN2+ as a proportion of women screened who were not diagnosed with CIN2+
12. Systematic review [1]
13. False negative rate was defined as the proportion of invasive cervical cancer cases occurring among women with negative preceding screening results.
14. Systematic review [1] Supporting references [27], primary study 1. [50], primary study 1.
15. Systematic review [1] Supporting references [37], primary study 4 - 5.7% (intervention) vs 3.1% (control). [25], primary study 1 - 7.9% (intervention) vs 2.8% (control). [28], primary study 3 - 3.8% (intervention) vs 2.7% (control). [27], primary study 2 - 1.2% (intervention) vs 1.1% (control). [51], primary study 6 - 2.26% (intervention) vs 2.29% (control). [50], primary study 5 - 6.6% (intervention) vs 3.6% (control).

References

[1] Melnikow J, Henderson JT, Burda BU, Senger CA, Durbin S, Weyrich MS : Screening for Cervical Cancer With High-Risk Human Papillomavirus Testing: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2018;320(7):687-705

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[33] Kitchener HC, Almonte M, Thomson C, Wheeler P, Sargent A, Stoykova B, Gilham C, Baysson H, Roberts C, Dowie R, Desai M, Mather J, Bailey A, Turner A, Moss S, Peto J : HPV testing in combination with liquid-based cytology in primary cervical screening (ARTISTIC): a randomised controlled trial. Lancet Oncol 2009;10(7):672-682

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[37] Ogilvie GS, Krajden M, van Niekerk D, Smith LW, Cook D, Ceballos K, Lee M, Gentile L, Gondara L, Elwood-Martin R, Peacock S, Stuart G, Franco EL, Coldman AJ : HPV for cervical cancer screening (HPV FOCAL): Complete Round 1 results of a randomized trial comparing HPV-based primary screening to liquid-based cytology for cervical cancer. International journal of cancer 2017;140(2):440-448

[48] Andreassen T, Hansen BT, Engesaeter B, Hashim D, Støer NC, Tropé A, Moen K, Ursin G, Weiderpass E : Psychological effect of cervical cancer screening when changing primary screening method from cytology to high-risk human papilloma virus testing. International journal of cancer 2019;145(1):29-39
[50] Zhang J, Zhao Y, Dai YI, Dang LE, Ma LI, Yang C, Li Y, Kong L, Wei L, Zhang S, Liu J, Xi M, Chen L, Duan X, Xiao Q, Abulizi G, Zhang G, Hong Y, Gao X, Zhou QI, Xie X, Li LI, Niyazi M, Zhang Z, Tuo J, Ding Y, Si M, Chen F, Song LI, Qiao Y, Lang J : Effectiveness of High-risk Human Papillomavirus Testing for Cervical Cancer Screening in China: A Multicenter, Open-label, Randomized Clinical Trial. JAMA oncology 2021;7(2):263-270
[51] Han L, Chang X, Song P, Gao L, Zhang Y, An L, Shen J : An on-going study of three different cervical cancer screening strategies based on primary healthcare facilities in Beijing China. Journal of infection and public health 2020;13(4):577-583

2.2 – Cotesting (hrHPV + cytology screening)

PICO
Population: Women aged 21 years or older who have a cervix
Intervention: Cotesting (hrHPV + cytology screening)
Comparator: Cytology screening

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Cytology screening	Cotesting		
Cervical cancer incidence	Rate ratio: 0.6 (CI 95% 0.4 - 0.89) Based on data from 175509 participants in 4 studies[1] Follow up 8 years	**77** per 100,000	**47** per 100,000	High [2]	Incidence of invasive cervical cancer was consistently lower in the cotesting group across all 4 trials reporting on one round of screening.
		Difference: **30 fewer per 100,000**			
Biopsy rate	Rate ratio: 1.35 (CI 95% 1.3 - 1.4) Based on data from 175509 participants in 4 studies[3] Follow up 5-12 years	**48** per 1000	**69** per 1000	Moderate [4]	Biopsy rates were similar between groups in 3 of the 4 trials reporting on one round of screening, and were twice as high in the hrHPV group in 1 trial where screen-positive women were referred directly to colposcopy.
		Difference: **21 more per 1000**			
False negative rate[5]	Rate ratio: 0.3 (CI 95% 0.15 - 0.6) Based on data from 175509 participants in 4 studies[6]	**36** per 100,000	**9** per 100,000	High [7]	False-negative rates for invasive cervical cancer were consistently lower in the hrHPV group across all 4 trials reporting on
		Difference: **27 fewer per 100,000**			

	Follow up 2.5 years after a negative-test			one round of screening.
CIN3+ detection rate[8]	Based on data from 305673 participants in 6 studies[9] Follow up 2-5 years	In round 1 of screening, 5 of the 6 trials found no significant difference in CIN3+ detection between the two study groups (RR range, 0.96 [95% CI, 0.74-1.23] to 1.31 [95% CI, 0.92-1.87]), and only one trial found significantly higher CIN3+ detection in the cotesting group (RR, 3.05 [95% CI, 1.74-5.36]). By the second round of screening 3-5 years later, three trials found significantly lower CIN3+ detection in the cotesting group (RR range, 0.53 [95% CI, 0.29-0.98] to 0.3 [95% CI, 0.55-0.96]). Cumulative detection from both screening rounds was similar across all trials.	-	CIN3+ detection rates were similar between groups in 5 of the 6 trials reporting on one round of screening, and were lower in the cotesting group across all 3 trials reporting on round two. Cumulative detection across both screening rounds was similar in all trials.
False positive rate[10]	Based on data from 107593 participants in 3 studies[11] Follow up 4-9 years	In Round 1 of screening, false positive rates ranged from 5.8% to 19.9% for cotesting (intervention) compared with 2.6% to 10.9% in the cytology alone (control). Round 2 results, reported in only one trial, were similar between groups.	-	False-positive rates were consistently higher in the cotesting group across all 3 trials reporting on one round of screening. Round two results, reported in only 1 trial, were similar between groups.
Test positivity rate[12]	Based on data from 284413 participants in 5 studies[13] Follow up 4-9 years	In Round 1 of screening, test positivity ranged from 7.0% to 21.9% for cotesting (intervention) compared with 2.4% to 12.8% for cytology alone (control). None of the trials reported test positivity rates for a second screening round.	-	Test positivity rates were consistently higher in the cotesting group across all 4 trials reporting on one round of screening.

Colposcopy referral rate	Based on data from 247640 participants in 4 studies[14] Follow up 4-7 years	In Round 1 of screening, colposcopy rates ranged from 6.36% to 10.9% for contesting (intervention), compared with 2.0% to 5.2% for cytology alone (control). None of the trials reported colposcopy referral rates for a second screening round.	-	Colposcopy referral rates were consistently higher in the cotesting group across all 4 trials reporting on one round of screening.

Footnotes

1. Systematic review [36] with included studies: [25], [31], [30], [33] Baseline/comparator Systematic review [36] .
2. Inconsistency: no serious. No evidence of heterogeneity was noted between studies (p=0·52), and a random-effects model gave an almost identical estimate (rr 0·61, 0·41–0·91).;
3. Systematic review [36] with included studies: [33], [25], [31], [30] Baseline/comparator Systematic review [36] .
4. Inconsistency: serious. The statistical heterogeneity was very high, with I2=99.1% and p<0.0001;
5. False negatives were defined as the proportion of invasive cervical cancer cases occurring among women with negative preceding screening results
6. Systematic review [36] with included studies: [33], [25], [31], [30] Baseline/comparator Systematic review [36] .
7. Inconsistency: no serious. No heterogeneity was noted between studies (p=0·23), and the random-effects model estimate was almost identical (RR, 0·34; 95% CI, 0·14–0·86).;
8. Disease detection is measured through detection of CIN3+ cases. The RCTs and large observational cohort studies examined CIN3+ detection rates using hrHPV + cytology cotesting (intervention) compared with screening with cytology as the primary test (control).
9. Systematic review [1] Supporting references [31], primary study 3 - RR 1.31 (95% CI 0.92-1.87). [25], primary study 1 - RR 1.28 (95% CI 0.91-1.80). [30], primary study 2 - RR 1.15 (95% CI 0.92-1.43). [32], primary study 4 - RR 0.96 (95% CI 0.74-1.23). [51], primary study 6 - RR 1.30 (95% CI 0.81 to 2.12). [49], primary study 5 - RR 3.05 (95% CI 1.74-5.36).
10. False positive rate was calculated as the number with a positive screening test result without diagnosis of CIN2+ as a proportion of women screened who were not diagnosed with CIN2+
11. Systematic review [1]
12. Test positivity was defined as the rate of test findings that would lead to a clinical action, based on the study protocol, such as colposcopy or more intensive follow-up (e.g., retest in 6 months).
13. Systematic review [1] Supporting references [51], primary study 5 - 8.46% (intervention) vs 2.18% (control). [31], primary study 3 - 6.9% (intervention) vs 2.4% (control). [30], primary study 2 - 7.0% (intervention) vs 3.5% (control). [25], primary study 1 - 12.5% (intervention) vs 3.8% (control). [33], primary study 4 - 21.9% (intervention) vs 12.8% (control).
14. Primary study Supporting references [33], Primary study 2 - 6.8% (intervention) vs 5.2% (control). [51], Primary study 4 - 6.36% (intervention) vs 2.29% (control). [25], Primary study 1 - 10.9% (intervention) vs 3.3% (control). [49], Primary study 3 - 9.3% (intervention) vs 2.0% (control).

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2.3 – hrHPV self-testing vs. hrHPV clinician-testing

PICO
Population: Women participating in cervical cancer screening, or women with cervical abnormalities detected previously and under follow-up
Intervention: hrHPV self-testing
Comparator: hrHPV clinician-testing

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		hrHPV self-testing	hrHPV clinician-testing		
Specificity for CIN2+ (SA)[1]	Relative risk: 0.96 (CI 95% 0.93 - 0.98) Based on data from participants in 23 studies[2]	-		Very low [3]	hrHPV assays based on signal amplification were less specific on self samples than on clinician samples for CIN2+
Sensitivity for CIN2+ (SA)[4]	Relative risk: 0.85 (CI 95% 0.8 - 0.89) Based on data from participants in 23 studies[5]	-		Very low [6]	hrHPV assays based on signal amplification were less sensitive on self samples than on clinician samples to detect CIN2+

Positive predictive value for CIN2+ (SA)	Relative risk: 0.71 (CI 95% 0.62 - 0.82) Based on data from participants in 23 studies[7]	-	Low	The positive predictive value for CIN2+ based on signal amplification was significantly lower for self samples than for clinician samples
Sensitivity for CIN3+ (SA)[8]	Relative risk: 0.86 (CI 95% 0.76 - 0.98) Based on data from participants in 9 studies[9]	-	Very low [10]	hrHPV assays based on signal amplification were less sensitive on self samples than on clinician samples to detect CIN3+
Positive predictive value for CIN3+ (SA)	Relative risk: 0.65 (CI 95% 0.57 - 0.78) Based on data from participants in 9 studies[11]	-	Low	The positive predictive value for CIN3+ based on signal amplification was significantly lower for self samples than for clinician samples
Specificity for CIN3+ (SA)[12]	Relative risk: 0.97 (CI 95% 0.95 - 0.99) Based on data from participants in 9 studies[13]	-	Very low [14]	hrHPV assays based on signal amplification were less specific on self samples than on clinician samples for CIN3+
Test positivity rate (SA)	Relative risk: 1.14 (CI 95% 1.05 - 1.24) Based on data from participants in 32 studies[15]	-	Low	The test positivity rate based on signal amplification was 14% higher for self samples than for clinician samples
Sensitivity for CIN2+ (PCR)[16]	Relative risk: 0.99 (CI 95% 0.96 - 1.02) Based on data from participants in 17 studies	-	Low [17]	hrHPV assays based on polymerase chain reaction were as sensitive on self samples as on clinician samples to detect CIN2+
Specificity for CIN2+ (PCR)[18]	Relative risk: 0.98 (CI 95% 0.97 - 0.99) Based on data from participants in 17 studies	-	Low [19]	hrHPV assays based on polymerase chain reaction were slightly less specific on self samples than on clinician samples for CIN2+
Positive predictive value for CIN2+ (PCR)	Relative risk: 0.97 (CI 95% 0.9 - 1.04) Based on data from participants in 17 studies[20]	-	Low	The positive predictive value for CIN2+ based on polymerase chain reaction was not significantly lower for self samples than for clinician samples

Sensitivity for CIN3+ (PCR)[21]	Relative risk: 0.99 (CI 95% 0.97 - 1.02) Based on data from participants in 8 studies	-	Low [22]	hrHPV assays based on polymerase chain reaction were as sensitive on self samples as on clinician samples to detect CIN3+
Specificity for CIN3+ (PCR)[23]	Relative risk: 0.98 (CI 95% 0.97 - 0.99) Based on data from participants in 8 studies	-	Low [24]	hrHPV assays based on polymerase chain reaction were slightly less specific on self samples than on clinician samples for CIN3+
Positive predictive value for CIN3+ (PCR)	Relative risk: 0.9 (CI 95% 0.78 - 1.05) Based on data from participants in 8 studies	-	Low	The positive predictive value for CIN3+ based on polymerase chain reaction was not significantly lower for self samples than for clinician samples
Test positivity rate (PCR)	Relative risk: 1.0 (CI 95% 0.94 - 1.06) Based on data from participants in 25 studies[25]	-	Low	The test positivity rate based on polymerase chain reaction was similar in self samples versus clinician samples

Footnotes

1. Relative specificity of hrHPV testing with signal-amplification based tests on self-samples compared to hrHPV testing on clinician samples to detect CIN2+
2. Systematic review [47].
3. Inconsistency: very serious. I-squared = 93.0%, p = 0.000;
4. Relative sensitivity of hrHPV testing with signal-amplification based tests on self-samples compared to hrHPV testing on clinician samples to detect CIN2+
5. Systematic review [47].
6. Inconsistency: serious. I-squared = 62.5%, p = 0.000;
7. Systematic review [47].
8. Relative sensitivity of hrHPV testing with signal-amplification based tests on self-samples compared to hrHPV testing on clinician samples to detect CIN3+
9. Systematic review [47].
10. Inconsistency: serious. I-squared = 72.9%, p = 0.000;
11. Systematic review [47].
12. Relative specificity of hrHPV testing with signal-amplification based tests on self-samples compared to hrHPV testing on clinician samples to detect CIN3+
13. Systematic review [47].
14. Inconsistency: serious. I-squared = 78.3%, p = 0.000;
15. Systematic review [47].
16. Relative sensitivity of hrHPV testing using clinically validated PCR-based assays on self-samples compared to hrHPV testing on clinician samples to detect CIN2+
17. Inconsistency: no serious. I-squared = 0.0%, p = 0.955;

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18. Relative specificity of hrHPV testing using clinically validated PCR based assays on self-samples compared to hrHPV testing on clinician samples to detect CIN2+
19. Inconsistency: no serious. I-squared = 5.4%, p = 0.391;
20. Systematic review [47].
21. Relative sensitivity of hrHPV testing using clinically validated PCR-based assays on self-samples compared to hrHPV testing on clinician samples to detect CIN3+
22. Inconsistency: no serious. I-squared = 0.0%, p = 0.885;
23. Relative specificity of hrHPV testing using clinically validated PCR-based assays on self-samples compared to hrHPV testing on clinician samples to detect CIN3+
24. Inconsistency: no serious. I-squared = 0.0%, p = 0.885;
25. Systematic review [47].

References

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2.4 – Equity outcomes: hrHPV self-sampling by sociodemographic characteristics

PICO

Population: Women aged 30 to 60 years
Intervention: Equity Outcomes - hrHPV self-testing by sociodemographic characteristics
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Screening uptake (overall)[1]	Relative risk: 2.1 (CI 95% 1.8 - 2.45) Based on data from 309892 participants in 35 studies[2] Follow up 1 to 36 months	-	Moderate [3]	Women were twice as likely to use cervical cancer screening services through self-sampling compared with standard-of-care screening practices.
Linkage to clinical assessment or treatment after positive screening result[4]	Relative risk: 1.07 (CI 95% 1.0 - 1.04) Based on data from 1796 participants in 8 studies[5] Follow up 3-12 months	-	Moderate [6]	There was no difference in rate of post-screening linkage to care among women who received a positive screening result between arms.
Screening uptake (rural setting)	Relative risk: 1.4 (CI 95% 1.35 - 1.73) Based on data from participants in 4 studies[7]	-	Moderate [8]	Women were more likely to use hrHPV self-sampling than standard-of-care screening practices across all settings, although this effect was less prominent in women residing in rural settings compared with those

				residing in urban settings.
Screening uptake (urban setting)	Relative risk: 2.1 (CI 95% 1.53 - 2.83) Based on data from participants in 13 studies[9]	-	Moderate [10]	Women were more likely to use hrHPV self-sampling than standard-of-care screening practices across all settings, although this effect was more prominent in women residing in urban settings compared with those residing in rural settings.
Screening uptake (low SES)	Relative risk: 1.62 (CI 95% 1.15 - 2.28) Based on data from participants in 4 studies[11]	-	Moderate [12]	Women were more likely to use hrHPV self-sampling than standard-of-care screening practices, and this effect was more prominent in women of lower socioeconomic status compared with women of higher socioeconomic status.
Screening uptake (high SES)	Relative risk: 1.4 (CI 95% 1.15 - 1.71) Based on data from participants in 3 studies[13]	-	Moderate [14]	Women were more likely to use hrHPV self-sampling than standard-of-care screening practices across all socioeconomic groups, although this effect was less prominent in women of higher socioeconomic status compared with women of lower socioeconomic status.
Screening uptake (age <50 years)	Relative risk: 1.95 (CI 95% 1.61 - 2.36) Based on data from participants in 12 studies[15]	-	Moderate [16]	Women were more likely to use hrHPV self-sampling than standard-of-care screening practices across all socioeconomic groups, although this effect was less prominent in women aged less than

				50 years compared with women over 50.
Screening uptake (age ≥50 years)	Relative risk: 2.25 (CI 95% 1.44 - 3.5) Based on data from participants in 11 studies[17]	-	Moderate [18]	Women were more likely to use hrHPV self-sampling than standard-of-care screening practices across all socioeconomic groups, although this effect was more prominent in women over the age of 50 compared with women under 50.

Footnotes

1. Refers to the population coverage, or proportion of those offered HPV testing or other screening methods who accepted and completed screening.
2. Systematic review [40] with included studies: [44], [45], [46], [41], [42], [43] Baseline/comparator Systematic review .
3. Inconsistency: serious. The magnitude of statistical heterogeneity was high, with I^2=99.356%.;
4. Among people who have a positive test result, the percentage who reach this next stage of management.
5. Systematic review [40] with included studies: [44], [45] .
6. Inconsistency: serious. The magnitude of statistical heterogeneity was high, with I^2=84.16%.;
7. Systematic review [40].
8. Inconsistency: serious.
9. Systematic review [40].
10. Inconsistency: serious.
11. Systematic review [40].
12. Inconsistency: serious.
13. Systematic review [40].
14. Inconsistency: serious.
15. Systematic review [40].
16. Inconsistency: serious.
17. Systematic review [40].
18. Inconsistency: serious.

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2.5 – Equity outcomes: cervical cancer screening by disability status

PICO
Population: Women aged 18 to 70 years
Intervention: Equity outcomes - cervical cancer screening by disability status
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Screening uptake (disability vs no disability)	Odds ratio: 0.63 (CI 95% 0.43 - 0.88) Based on data from participants in 16 studies[1]	-	Low Due to serious inconsistency[2]	Women with disabilities were less likely to receive cervical cancer screening compared to women without disability.

Footnotes
1. Systematic review [74].
2. Inconsistency: serious. There was evidence of high between-study heterogeneity (I2 = 100%, p ≤ 0.001);

References
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2.6 – Equity outcomes: cervical cancer screening by race/ethnicity

PICO
Population: Women aged 18 to 69 years
Intervention: Equity outcomes - cervical cancer screening by race/ethnicity
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Screening uptake (Asian vs White race)	Odds ratio: 0.17 (CI 95% 0.15 - 0.19)	-	-	Asian women were less likely to receive cervical cancer

	Based on data from 538218 participants in 1 studies[1]			screening compared with White women.
Screening uptake (Native Hawaiian/other Pacific Islander vs White race)	Odds ratio: 0.34 (CI 95% 0.25 - 0.46) Based on data from 538218 participants in 1 studies[2]	-	-	Native Hawaiian/other Pacific Islander women were less likely to receive cervical cancer screening compared with White women.
Screening uptake (American Indian/Alaskan Native vs White race)	Odds ratio: 0.66 (CI 95% 0.53 - 0.83) Based on data from 538218 participants in 1 studies[3]	-	-	American Indian/Alaskan Native women were less likely to receive cervical cancer screening compared with White women.
Screening uptake (Hispanic vs White race)	Odds ratio: 0.73 (CI 95% 0.67 - 0.79) Based on data from 538218 participants in 1 studies[4]	-	-	Hispanic women were less likely to receive cervical cancer screening compared with White women.
Screening uptake (other non-Hispanic vs White race)	Odds ratio: 0.44 (CI 95% 0.32 - 0.6) Based on data from 538218 participants in 1 studies[5]	-	-	Other non-Hispanic women were less likely to receive cervical cancer screening compared with White women.

Footnotes

1. Primary study [75] .
2. Primary study [75] .
3. Primary study [75] .
4. Primary study [75] .
5. Primary study [75] .

References

[75] McDaniel CC, Hallam HH, Cadwallader T, Lee HY, Chou C : Persistent racial disparities in cervical cancer screening with Pap test. Preventive medicine reports 2021;24 101652

2.7 – Equity outcomes: cervical cancer screening by sociodemographic characteristics

PICO

Population: Women aged 18 to 69 years
Intervention: Equity outcomes - cervical cancer screening by sociodemographic characteristics
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Screening uptake (young vs old age)	Based on data from 538218 participants in 1 studies[1]	Younger women were significantly less likely to receive a Pap test compared with older women (OR for ages 18–24, 0.08 [95% CI, 0.07–0.09]; OR for ages 25–29, 0.43 [95% CI, 0.37–0.50]; OR for ages 30–34, 0.66 [95% CI, 0.57–0.77]).	-	Younger women were significantly less likely to receive a Pap test compared with older women
Screening uptake (low vs high education)	Based on data from 538218 participants in 1 studies[2]	Women with less than a college degree were significantly less likely to receive a Pap test compared with more college graduates (OR for no school, 0.25 [95% CI, 0.16–0.40]; OR for elementary, 0.31 [95% CI, 0.27–0.37]; OR for some high school, 0.38 [95% CI, 0.34–0.43]; OR for high school graduate, 0.44 [95% CI, 0.41–0.48]; OR for some college or technical school, 0.70 [95% CI, 0.65–0.76]).	-	Women with less than a college degree were significantly less likely to receive a Pap test compared with more college graduates.
Screening uptake (not married vs married)	Based on data from 538218 participants in 1 studies[3]	Women who were not married were significantly less likely to receive a Pap test compared with married women (OR for divorced, 0.86 [95% CI, 0.76–0.98]; OR for widowed, 0.68 [95% CI, 0.58–0.79]; OR separated, 0.68 [95% CI, 0.59–0.79]; OR for never married, 0.38 [95% CI, 0.36–0.41]; OR for unmarried couple, 0.83 [95% CI, 0.74–0.93]).	-	Women who were not married were significantly less likely to receive a Pap test compared with married women.

Screening uptake (no health insurance vs health insurance)	Based on data from 538218 participants in 1 studies[4]	Women with no health insurance were significantly less likely to receive a Pap test compared with insured women (OR, 1.54 [95% CI, 0.24–0.92]).	-	Women with no health insurance were significantly less likely to receive a Pap test compared with insured women.

Footnotes

1. Primary study Supporting references [75].
2. Primary study Supporting references [75].
3. Primary study Supporting references [75].
4. Primary study Supporting references [75].

References

[75] McDaniel CC, Hallam HH, Cadwallader T, Lee HY, Chou C : Persistent racial disparities in cervical cancer screening with Pap test. Preventive medicine reports 2021;24 101652

3. Lung Cancer Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Screening high-risk individuals with low-dose computed tomography can reduce lung cancer mortality and is not associated with any harms.	

Certainty of the Evidence	High

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Black individuals screened with low-dose computed tomography show greater reduction in both lung cancer mortality and all-cause mortality compared with white individuals, despite lower screening participation in this group. Among persons diagnosed with lung cancer, a significantly lower percentage of Black smokers are eligible for lung cancer screening compared with white smokers. Revisions to screening guidelines should consider racial/ethnic variation in cigarette smoking, additional risk factors, and overall level of risk.	

3.1 – Low dose CT screening vs. chest radiography

PICO
Population: Men aged 60 to 75 years with a minimum 20 pack-years of smoking
Intervention: Low dose CT screening
Comparator: Chest radiography

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Low dose CT screening	Chest radiography		
All-cause mortality	Rate ratio: 0.95 (CI 95% 0.77 - 1.17) Based on data from 2472 participants in 1 studies[1] Follow up 8 years	-		Moderate	All-cause mortality did not differ significantly between the two groups.
Lung cancer mortality	Rate ratio: 1.0 (CI 95% 0.69 - 1.44) Based on data from 2472 participants in 1 studies[2] Follow up 8 years	-		Moderate [3]	Lung cancer mortality did not differ significantly between the two groups.
Incidence of early-stage lung cancer	Rate ratio: 2.38 (CI 95% 1.44 - 3.0) Based on data from 2472 participants in 1 studies[4]	-		Moderate [5]	Incidence of early-stage lung cancer was higher in the LDCT screening group than the CXR group.

	Follow up 8 years			
Incidence of late-stage lung cancer	Rate ratio: 0.89 (CI 95% 0.89 - 1.35) Based on data from 2472 participants in 1 studies[6] Follow up 8 years	-	Moderate [7]	Incidence of late-stage lung cancer was lower in the LDCT screening group than the CXR group.
Cumulative incidence of lung cancer	Rate ratio: 1.35 (CI 95% 1.0 - 1.81) Based on data from 2472 participants in 1 studies[8] Follow up 8 years	-	Moderate	Cumulative incidence of lung cancer was higher in the LDCT screening group than the CXR group.

Footnotes

1. Systematic review [38] with included studies: [52] .
2. Systematic review [38] with included studies: [52] .Supporting references [52].
3. Imprecision: no serious. Only data from one study, Low number of patients;
4. Systematic review [38] with included studies: [52] .
5. Risk of Bias: no serious. Inadequate/lack of blinding of participants and personnel, resulting in potential for performance bias, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias; Imprecision: no serious. Low number of patients;
6. Systematic review [38] with included studies: [52] .Supporting references [53]. [52].
7. Risk of Bias: no serious. Inadequate/lack of blinding of participants and personnel, resulting in potential for performance bias, Inadequate/lack of blinding of outcome assessors, resulting in potential for detection bias; Imprecision: no serious. Low number of patients;
8. Systematic review [38] with included studies: [52] Baseline/comparator .

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3.2 – Low dose CT screening vs. chest radiography

PICO

Population: Men and women aged 50 to 74 years with a minimum 30 pack-years of smoking
Intervention: Low dose CT screening
Comparator: Chest radiography

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Low dose CT screening	Chest radiography		
Incidence of late-stage lung cancer	Rate ratio: 0.84 (CI 95% 0.76 - 0.92) Based on data from 53454 participants in 1 studies[1] Follow up 11 years	-		Moderate	Incidence of late-stage lung cancer was lower in the LDCT screening group than the CXR group.
Incidence of early-stage lung cancer	Rate ratio: 1.33 (CI 95% 1.2 - 1.48) Based on data from 53454 participants in 1 studies[2] Follow up 11 years	-		Moderate	Incidence of early-stage lung cancer was higher in the LDCT screening group than the CXR group.
Cumulative incidence of lung cancer	Rate ratio: 1.01 (CI 95% 0.95 - 1.08) Based on data from 53452 participants in 1 studies[3] Follow up 11 years	-		Moderate	Cumulative incidence of lung cancer did not differ significantly between the two groups.
Lung cancer mortality	Based on data from 56772 participants in 2 studies[4] Follow up 5-7 years	Lung cancer mortality was lower in the LDCT screening group than the CXR group (rate ratio, 0.85 [CI 95% 0.75 - 0.96]) in one of the two trials reporting sufficient data for this comparison.		Moderate	Lung cancer mortality was lower in the LDCT screening group than the CXR group in one of the two trials reporting sufficient data for this comparison.
All-cause mortality	Based on data from 56772 participants in 2 studies[5] Follow up 5-7 studies	All-cause mortality was lower in the LDCT screening group than the CXR group (rate ratio, 0.93 [CI 95% 0.88 - 0.99]) in one of the two trials reporting sufficient data for this comparison.		Moderate	All-cause mortality was lower in the LDCT screening group than the CXR group in one of the two trials reporting sufficient data for this comparison.

Footnotes

1. Systematic review [38] with included studies: [64] .
2. Systematic review [38] with included studies: [64] .
3. Systematic review [38] with included studies: [64] .
4. Systematic review [38]
5. Systematic review [38]

References

31

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[64] Aberle DR, Black WC, Chiles C, Church TR, Gareen IF, Gierada DS, Mahon I, Miller EA, Pinsky PF, Sicks JD : Lung Cancer Incidence and Mortality with Extended Follow-up in the National Lung Screening Trial. Journal of thoracic oncology : official publication of the International Association for the Study of Lung Cancer 2019;14(10):1732-1742

3.3 – Low dose CT screening vs. no screening

PICO
Population: Men and women aged 50 to 74 years with a minimum 20 pack-years of smoking
Intervention: Low dose CT screening
Comparator: No screening

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Low dose CT screening	No screening		
Lung cancer mortality	Based on data from 20505 participants in 3 studies[1] Follow up 9-10 years	One trial (N = 15,792) reported a reduction in lung cancer mortality for 4 rounds of LDCT screening compared with no screening (241 per 100,000 person-years vs. 324 per 100,000 person-years; RR, 0.75 [95% CI, 0.61-0.90]). Results of the other two trials (N = 7,310) were very imprecise and did not show statistically significant differences between groups (201 per 100,000 person-years and 293 per 100,000 person-years vs. 194 per 100,000 person-years and 421 per 100,000 person-years; RR, 1.03 [95% CI, 0.66 to 1.61] and 0.70 [95% CI, 0.47 to 1.03]).		Moderate	Lung cancer mortality was lower in the LDCT screening group than the no screening group in one of the three trials reporting sufficient data for this comparison.
All-cause mortality	Based on data from 20505 participants in 3 studies[2]	One trial (N = 3,206) found lower all-cause mortality in the LDCT screening group		Moderate	All-cause mortality was lower in the LDCT screening group than the no screening

	Follow up 9-10 years	compared with the no screening group (1,051 per 100,000 person-years vs. 1,270 per 100,000 person-years; RR, 0.83 [95% CI, 0.67 to1.03]). Results from the other two trials (N = 17,299) did not show statistically significant differences between groups (1,667 per 100,000 person-years and 868 per 100,000 person-years vs. 1,384 per 100,000 person-years and 860 per 100,000 person-years; RR, 1.20 [95% CI, 0.94 to 1.53] and 1.01 [95% CI, 0.92 to 1.11]).		group in one of the three trials reporting sufficient data for this comparison.
Incidence of early-stage lung cancer	Based on data from 20505 participants in 3 studies[3] Follow up 9-10 years	All 3 trials found a higher incidence of early-stage lung cancer in the LDCT screening group compared with the no screening group (rate ratio [RR], 5.42 [95% CI 2.76 to 10.63], 2.17 (95% CI 1.13 to 4.16) and 2.39 [95% CI 1.81 to 3.16]).	Moderate	Incidence of early-stage lung cancer was higher in the LBCT screening group than the no screening group across all three trials reporting sufficient data for this comparison.
Incidence of late-stage lung cancer	Based on data from 20505 participants in 3 studies[4] Follow up 9-10 years	Two trials (N = 16,401) found a lower incidence of late-stage lung cancer in the LDCT screening group compared with the no screening group (RR, 0.75 [95% CI, 0.47 to 1.17] and 0.72 [95% CI, 0.58 to 0.88]). One trial (N = 4,104) found slightly higher incidence in the LDCT group compared with the control group (RR,	Moderate	Incidence of late-stage lung cancer was lower in the LBCT screening group than the no screening group in two of the three trials reporting sufficient data for this comparison.

		1.13 [95% CI, 0.74 to 1.72]).		
Cumulative incidence of lung cancer	Based on data from 20505 participants in 3 studies[5] Follow up 9-10 years	Two trials (N = 17,299) found a higher cumulative lung cancer incidence in the LDCT screening group compared with the no screening group (RR, 1.14 [95% CI, 0.97 to 1.33] and 1.89 [95% CI, 1.36 to 2.64]). One trial (N = 3,206) found slightly lower incidence in the LDCT group (RR, 0.92 [95% CI, 0.66 to 1.28]).	Moderate	Cumulative incidence of lung cancer was higher in the LDCT screening group than the no screening group in two of the three trials reporting sufficient data for this comparison.

Footnotes
1. Systematic review [38]
2. Systematic review [38]
3. Systematic review [38]
4. Systematic review [38]
5. Systematic review [38]

References
[38] Jonas DE, Reuland DS, Reddy SM, Nagle M, Clark SD, Weber RP, Enyioha C, Malo TL, Brenner AT, Armstrong C, Coker-Schwimmer M, Middleton JC, Voisin C, Harris RP : Screening for Lung Cancer With Low-Dose Computed Tomography: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(10):971-987
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3.4 – Equity outcomes: lung cancer screening by race

PICO
Population: Men and women aged 50 to 74 years with a minimum 30 pack-years of smoking
Intervention: Equity outcomes - lung cancer screening by race
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Screening eligibility using USPSTF criteria (Black vs White race)	Based on data from 48364 participants in 1 studies[1] Follow up 12 years	Among all study participants, a significantly lower percentage of Black smokers (5,654 of	-	Fewer Black smokers were eligible for USPSTF recommended screening compared with White smokers.

		32,463; 17%) were eligible for USPSTF recommended lung cancer screening compared with White smokers (4,992 of 15,901; 31%) (P < .001).		
Screening eligibility among lung cancer patients using USPSTF criteria (Black vs White race)	Based on data from 1269 participants in 1 studies[2] Follow up 12 years	Among persons diagnosed with lung cancer, a significantly lower percentage of Black smokers (255 of 791; 32%) were eligible for USPSTF recommended lung cancer screening compared with White smokers (270 of 478; 56%) (P < .001).	-	Among those diagnosed with lung cancer, fewer Black smokers were eligible for USPSTF recommended screening compared with White smokers.
Lung cancer mortality after screening (Black vs White race)	Based on data from 50263 participants in 1 studies[3] Follow up 7 years	Although lung cancer mortality was reduced among all racial groups screened with LDCT compared with CXR, Black participants in the LDCT screening group had greater reduction in lung cancer mortality than White participants (hazard ratio, 0.61 [95% CI, 0.37–1.01] vs 0.86 [95% CI, 0.75–0.98]).	-	Black participants screened with LDCT had greater reduction in lung cancer mortality than White participants.
All-cause mortality after screening (Black vs White race)	Based on data from 50263 participants in 1 studies[4] Follow up 7 years	Although all-cause mortality was reduced among all racial groups screened with LDCT compared with CXR, Black participants in the LDCT screening group had greater reduction in all-cause mortality than White participants (hazard	-	Black participants screened with LDCT had greater reduction in all-cause mortality than White participants.

		ratio, 0.81 [95% CI, 0.65–1.00] vs 0.95 [95% CI, 0.89–1.02]).		

Footnotes
1. Primary study Supporting references [66], primary study.
2. Primary study Supporting references [66], primary study.
3. Primary study Supporting references [65], primary study.
4. Primary study Supporting references [65], primary study.

References
[39] Haddad DN, Sandler KL, Henderson LM, Rivera MP, Aldrich MC : Disparities in Lung Cancer Screening: A Review. Annals of the American Thoracic Society 2020;17(4):399-405
[65] Tanner NT, Gebregziabher M, Hughes Halbert C, Payne E, Egede LE, Silvestri GA : Racial Differences in Outcomes within the National Lung Screening Trial. Implications for Widespread Implementation. American journal of respiratory and critical care medicine 2015;192(2):200-8
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3.5 – Equity outcomes - lung cancer screening by HIV status

PICO
Population: HIV-positive patients aged 40 to 80 years, with current or former smoking history, with or without lung cancer
Intervention: Equity outcomes - Lung cancer screening by HIV status
Comparator: N/A

Summary of findings tables

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Screening eligibility among HIV-positive lung cancer patients using USPSTF criteria	Based on data from 71 participants in 1 studies[1]	According to 2013 USPSTF screening criteria, only 11 women (22%) and 6 men (32%) with lung cancer were eligible for screening. According to 2021 USPSTF screening criteria, 22 women (44%) and 12 men (63%) were eligible.	-	Among HIV-positive patients diagnosed with lung cancer, very few met 2013 USPSTF screening criteria and slightly more met 2021 criteria.

Footnotes
1. Systematic review [39] Supporting references [67].

References
[39] Haddad DN, Sandler KL, Henderson LM, Rivera MP, Aldrich MC : Disparities in Lung Cancer Screening: A Review. Annals of the American Thoracic Society 2020;17(4):399-405

[67] Sellers SA, Edmonds A, Ramirez C, Cribbs SK, Ofotokun I, Huang L, Morris A, Mccormack MC, Kunisaki KM, D'souza G, Rivera MP, Drummond MB, Adimora AA : Optimal Lung Cancer Screening Criteria Among Persons Living With HIV. Journal of acquired immune deficiency syndromes (1999) 2022;90(2):184-192

3.6 – Equity outcomes: lung cancer screening by geographic residence

PICO
Population: Persons aged 55 to 79 years
Intervention: Equity outcomes - lung cancer screening by geographic residence
Comparator: N/A

Summary of findings tables

Outcome	Study results and measurements	Absolute effect estimates	Certainty of the Evidence	Plain language summary
Lung cancer incidence (rural vs urban residence)	Rate ratio: 1.14 (CI 95% 1.14 - 1.15) [1]	-	-	Incidence of lung cancer was higher in rural areas compared with urban areas.
Lung cancer mortality (rural vs urban residence)	Rate ratio: 1.2 (CI 95% 1.19 - 1.21) [2]	-	-	Lung cancer mortality was higher in rural areas compared with urban areas.
Distant stage lung cancer incidence (rural vs urban residence)	Rate ratio: 1.15 (CI 95% 1.15 - 1.16) [3]	-	-	Incidence of late-stage lung cancer was higher in rural areas compared with urban areas.
Access to screening (rural vs urban residence)	[4]	Rural residents were less likely than urban residents to have access to a designated LDCT screening center within 30 miles (47.5% rural vs 93.7% urban) or a 30-minute drive (22.2% rural vs 83.2% urban).	-	Rural residents were less likely than urban residents to have access to a LDCT screening center.

Footnotes
2. Primary study [69] .
3. Primary study [69] .
4. Primary study [69] .
5. Systematic review [39] Supporting references [68].

References
[39] Haddad DN, Sandler KL, Henderson LM, Rivera MP, Aldrich MC : Disparities in Lung Cancer Screening: A Review. Annals of the American Thoracic Society 2020;17(4):399-405
[68] Eberth JM, Bozorgi P, Lebrón LM, Bills SE, Hazlett LJ, Carlos RC, King JC : Geographic Availability of Low-Dose Computed Tomography for Lung Cancer Screening in the United States, 2017. Preventing chronic disease 2018;15 E119

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4. Cardiovascular Disease Risk Assessment

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Global cardiovascular risk assessment is associated with reductions in blood pressure, cholesterol, and smoking, although no differences in cardiovascular morbidity or mortality are observed.	

Certainty of the Evidence	High

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Women are less likely than men to receive a cardiovascular risk assessment in primary care. Community-based screening such as screening for hypertension in retail pharmacies can help reduce cardiovascular morbidity, likely by identifying individuals not accessing primary care.	

4.1 – Global CVD risk assessment vs. no assessment

PICO
Population: Adults aged 18 years or older with no history of CVD
Intervention: Global CVD risk assessment
Comparator: No risk assessment

Summary of findings tables

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No risk assessment	Global CVD risk assessment		
Smoking cessation	Relative risk: 1.62 (CI 95% 1.08 - 2.43) Based on data from 4131 participants in 7 studies[1] Follow up Median of 12 years	-		Low	CVD risk assessment was associated with greater smoking cessation at follow-up.
Change in systolic blood pressure	Measured by: Scale: - Lower better Based on data from 7537 participants in 9 studies[2] Follow up Median of 12 years	Difference: **MD 2.22 lower** (CI 95% 3.49 lower - 0.95 lower)		Very low	CVD risk assessment was associated with greater reductions in systolic blood pressure at follow-up.

Change in total cholesterol	Measured by: Scale: - Lower better Based on data from 7813 participants in 5 studies[3] Follow up Median of 12 years	Difference: **MD 0.11 lower** (CI 95% 0.2 lower - 0.02 lower)	Very low	CVD risk assessment was associated with greater reductions in total cholesterol levels at follow-up.
Change in LDL cholesterol	Measured by: Scale: - High better Based on data from 4505 participants in 4 studies[4] Follow up Median of 12 years	Difference: **MD 0.15 lower** (CI 95% 0.26 lower - 0.05 lower)	Very low	CVD risk assessment was associated with greater reductions in LDL cholesterol levels at follow-up.

Footnotes

1. Systematic review [83].
2. Systematic review [83].
3. Systematic review [83].
4. Systematic review [83].

References

[83] Collins DRJ, Tompson AC, Onakpoya IJ, Roberts N, Ward AM, Heneghan CJ : Global cardiovascular risk assessment in the primary prevention of cardiovascular disease in adults: systematic review of systematic reviews. BMJ open 2017;7(3):e013650

4.2 – Traditional CVD risk assessment with CAC score vs. traditional CVD risk assessment

PICO

Population: Adults aged 18 years or older with no history of CVD
Intervention: Traditional CVD risk assessment models + Coronary Artery Calcium (CAC) score
Comparator: Traditional CVD risk assessment models (Framingham Risk Score or Pooled Cohort Equations)

Summary of findings table

Outcome	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Traditional CVD risk assessment	Traditional CVD risk assessment + CAC score		
Cardiac mortality	Relative risk: 0.95 (CI 95% 0.09 - 10.46) Based on data from 1934 participants in 1 studies[1]	-		-	There was no significant difference between the two groups with respect to number of cardiac deaths at 4 years.

	Follow up 4 years			
All-cause mortality	Relative risk: 2.01 (CI 95% 0.68 - 5.94) Based on data from 1934 participants in 1 studies[2] Follow up 4 years	-	-	There was no significant difference between the two groups with respect to number of all-cause deaths at 4 years.
Myocardial infarction	Relative risk: 2.37 (CI 95% 0.52 - 10.76) Based on data from 1934 participants in 1 studies[3] Follow up 4 years	-	-	There was no significant difference between the two groups with respect to number of myocardial infarctions at 4 years.
Medical procedure costs	Measured by: Scale: - Lower better Based on data from 1934 participants in 1 studies[4] Follow up 4 years	**712** USD Median Difference: **192 higher** (CI 95% 216 higher - 155 higher)	**904** USD Median	-	Overall medical procedure costs were comparable between the two groups at 4 years.
Medication costs	Measured by: Scale: - Lower better Based on data from 1934 participants in 1 studies[5] Follow up 4 years	**2937** USD Median Difference: **null higher**	**3149** USD Median	-	Medication costs were mildly higher in the scan group compared with the no-scan group at 4 years.

Footnotes

1. Systematic review [79] with included studies: [80] .
2. Systematic review [79] with included studies: [80] .
3. Systematic review [79] with included studies: [80] .
4. Systematic review [79] with included studies: [80] .
5. Systematic review [79] with included studies: [80] .

References

[80] Rozanski A, Gransar H, Shaw LJ, Kim J, Miranda-Peats L, Wong ND, Rana JS, Orakzai R, Hayes SW, Friedman JD, Thomson LEJ, Polk D, Min J, Budoff MJ, Berman DS : Impact of coronary artery calcium scanning on coronary risk factors and downstream testing the EISNER (Early Identification of Subclinical Atherosclerosis by Noninvasive Imaging Research) prospective randomized trial. Journal of the American College of Cardiology 2011;57(15):1622-32

PICO

Population: Adults aged 18 years or older with no history of CVD
Intervention: Traditional CVD risk assessment models + Coronary Artery Calcium (CAC) score

Comparator: Traditional CVD risk assessment models (Framingham Risk Score or Pooled Cohort Equations)

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Traditional CVD risk assessment	Traditional CVD risk assessment + CAC score		
Calibration[1]	Based on data from 46979 participants in 9 studies[2]	Model development studies demonstrate that the addition of CAC to traditional risk factors assessment can improve model fit. However, the clinical meaning of changes in these measures is unclear.		Moderate	Improved calibration.
Discrimination[3]	Based on data from 115686 participants in 15 studies[4]	CAC in addition to traditional risk factor assessment results in changes of 0.018 to 0.144. Discrimination is not consistently greater in men or women.		Moderate	At least small, sometimes large improvement.
Risk reclassification[5]	Based on data from 58289 participants in 15 studies[6]	CAC resulted in net reclassification indices of 0.084 to 0.351 when added to traditional risk factor assessment. Improvements are consistently driven by CVD event reclassifications much larger than nonevent reclassifications, which were commonly negative when reported and sometimes statistically significant. Reclassification is not consistently greater in men or women.		Moderate	Net reclassification indices of 0.084 to 0.35; people without events inappropriately reclassified.
Radiation dose	Based on data from 11473 participants in 4 studies[7]	The radiation exposure or effective radiation dose per CT examination is low (2 mSv or less).		Moderate	The radiation exposure per CT examination is low.
Psychological outcomes	Based on data from 1619 participants in 2 studies[8]	Risk assessment with CAC score is not associated with subsequent depression, anxiety, or decline in overall mental health functioning up to 1 year of follow up.		Moderate	Risk assessment with CAC score does not appear to cause short-term mental distress.

CVD events	Based on data from 11364 participants in 2 studies[9]	Risk assessment with CAC score is not associated with a paradoxical increase in CVD events (MI, CVA, unstable angina) or all-cause mortality at approximately 1.5 years to 3 years of follow-up.	Moderate	Risk assessment with CAC score did not appear to paradoxically increase CVD events.
Healthcare utilization	Based on data from 13204 participants in 3 studies[10]	Best quality evidence from one RCT found no statistically significant increase in cardiac imaging or revascularization for Risk assessment with CAC score at 4 years of follow-up. Two retrospective cohort studies using differently assembled control groups had mixed findings: one study using Medicare found a higher number of cardiac imaging and revascularization procedures associated with CAC as opposed to hsCRP or lipid screening.	Moderate	Findings are mixed for the effect of CAC score on downstream health care utilization.

Footnotes

1. Calibration refers to the agreement between observed and predicted outcomes (measures: agreement between observed and predicted risks).
2. Systematic review [79]
3. Discrimination is the ability to distinguish between individuals who will and will not have an event (measures: area under the curve, c-statistic).
4. Systematic review [79]
5. Reclassification reflects the ability of a new model to appropriately reassign people into different risk strata (measures: net reclassification index, integrated discrimination improvement).
6. Systematic review [79]
7. Systematic review [79]
8. Systematic review [79]
9. Systematic review [79]
10. Systematic review [79]

References

[79] Lin JS, Evans CV, Johnson E, Redmond N, Coppola EL, Smith N : Nontraditional Risk Factors in Cardiovascular Disease Risk Assessment: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2018;320(3):281-297

4.3 – Traditional CVD risk assessment with ABI score vs. traditional CVD risk assessment

PICO

Population: Adults aged 18 years or older with no history of CVD
Intervention: Traditional CVD risk assessment models + Ankle-Brachial Index (ABI) score
Comparator: Traditional CVD risk assessment models (Framingham Risk Score or Pooled Cohort Equations)

Summary of findings tables

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Traditional CVD risk assessment	Traditional CVD risk assessment + CAC score		
Calibration[1]	Based on data from 26286 participants in 5 studies[2]	The addition of ABI to FRS can improve model fit. However, the clinical meaning of changes in these measures of calibration is unclear.		Moderate	Improved calibration.
Discrimination[3]	Based on data from 79583 participants in 10 studies[4]	ABI can result in large improvements in discrimination when added to FRS in women, but not men, primarily because of poor discrimination of the base model in women but not men.		Moderate	Generally no to small improvement in discrimination, but large improvement in women.
Risk reclassification[5]	Based on data from 46979 participants in 9 studies	ABI can result in an improvement in reclassification when added to FRS in women, but not men, and is most promising for women at intermediate risk for heart CHD events.		Moderate	Net reclassification indices are at best <0.1 and are usually much smaller and often nonsignificant; women without CVD events inappropriately reclassified.

Footnotes

1. Calibration refers to the agreement between observed and predicted outcomes (measures: agreement between observed and predicted risks).
2. Systematic review [79]
3. Discrimination is the ability to distinguish between individuals who will and will not have an event (measures: area under the curve, c-statistic).
4. Systematic review [79]
5. Reclassification reflects the ability of a new model to appropriately reassign people into different risk strata (measures: net reclassification index, integrated discrimination improvement).

References

[79] Lin JS, Evans CV, Johnson E, Redmond N, Coppola EL, Smith N : Nontraditional Risk Factors in Cardiovascular Disease Risk Assessment: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2018;320(3):281-297

4.4 – Traditional CVD risk assessment with hsCRP level vs. traditional CVD risk assessment

PICO
Population: Adults aged 18 years or older with no history of CVD
Intervention: Traditional CVD risk assessment models + high-sensitivity C-Reactive Protein (hsCRP) level
Comparator: Traditional CVD risk assessment models (Framingham Risk Score or Pooled Cohort Equations)

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Traditional CVD risk assessment	Traditional CVD risk assessment + CAC score		
Calibration[1]	Based on data from 50343 participants in 9 studies[2]	The addition of hsCRP to traditional risk factors can improve model fit. However, the clinical meaning of changes in these measures is unclear. In model development studies, calibration plots suggest that the addition of hsCRP can improve model fit in some but not all risk groups.		Moderate	Improved calibration.
Discrimination[3]	Based on data from 265704 participants in 25 studies[4]	Improvements in discrimination from the addition of hsCRP to traditional cardiovascular risk assessment is small and more likely to occur in the context of a poorly discriminating base model. Model development studies found very small improvements in discrimination from the addition of hsCRP.		Moderate	Inconsistent; at most very small to small improvement.
Risk reclassification[5]	Based on data from 115686 participants in 15 studies[6]	Net reclassification indices from the addition of hsCRP to FRS are inconsistent. Best evidence showed a statistically significant reclassification index of 0.0152 (95% CI, 0.0078 to 0.0227). Reclassification occurs in men but not women.		Moderate	Best evidence shows net reclassification indices <0.02, otherwise inconsistent improvement when added to FRS; no improvement when added to PCE.

Footnotes
1. Calibration refers to the agreement between observed and predicted outcomes (measures: agreement between observed and predicted risks).
2. Systematic review [79]

3. Discrimination is the ability to distinguish between individuals who will and will not have an event (measures: area under the curve, c-statistic).
4. Systematic review [79]
5. Reclassification reflects the ability of a new model to appropriately reassign people into different risk strata (measures: net reclassification index, integrated discrimination improvement).
6. Systematic review [79]

References

[79] Lin JS, Evans CV, Johnson E, Redmond N, Coppola EL, Smith N : Nontraditional Risk Factors in Cardiovascular Disease Risk Assessment: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2018;320(3):281-297

4.5 – Equity outcomes: CVD risk assessment by gender

PICO

Population: Adults aged 18 years or older
Intervention: Equity outcomes - CVD risk assessment by gender
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Traditional CVD risk assessment	Traditional CVD risk assessment + CAC score		
CVD risk score assessment	Odds ratio: 0.87 (CI 95% 0.7 - 1.07) Based on data from 63196 participants in 3 studies[1]	-		Moderate	Women were 13% less likely to have a CVD risk score recorded than men (30.7% vs. 35.2%).
Blood pressure assessment	Odds ratio: 1.41 (CI 95% 0.89 - 2.25) Based on data from 398376 participants in 4 studies[2]	-		Moderate	Women were 40% more likely to be screened for blood pressure than men.
Cholesterol assessment	Odds ratio: 1.12 (CI 95% 0.77 - 1.64) Based on data from 1026710 participants in 5 studies[3]	-		Moderate	There was no evidence for sex difference in cholesterol assessment.
Smoking status assessment	Odds ratio: 0.68 (CI 95% 0.47 - 1.0) Based on data from 377297 participants in 3 studies[4]	-		Moderate	Women were 32% less likely to be assessed for smoking than men.

Footnotes

1. Systematic review [81].
2. Systematic review [81].
3. Systematic review [81].
4. Systematic review [81].

References

[81] Hyun KK, Millett ERC, Redfern J, Brieger D, Peters SAE, Woodward M : Sex Differences in the Assessment of Cardiovascular Risk in Primary Health Care: A Systematic Review. Heart, lung & circulation 2019;28(10):1535-1548

4.6 – Equity outcomes: CVD management in patients with psychiatric disorders

PICO

Population: Adults aged 18 years or older
Intervention: Equity outcomes - CVD management in patients with psychiatric disorders
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Traditional CVD risk assessment	Traditional CVD risk assessment + CAC score		
Quitting smoking in patients with and without depression	Odds ratio: 0.64 (CI 95% 0.49 - 0.8) Based on data from 9835 participants in 7 studies[1] Follow up Between 1 and 9 years	-		-	The proportion of patients who quit smoking was significantly lower for those with depression than those without depression.
Control of type 2 diabetes in patients with and without depression	Odds ratio: 0.18 (CI 95% 0.06 - 0.31) Based on data from participants in 3 studies[2] Follow up Between 3 months and 10 years	-		-	The control of type 2 diabetes, as mmol per mol of HbA1c, was significantly lower in patients with depression than those without depression.
Smoking status assessment in patients with and without schizophrenia	[3]	Patients with a medical diagnosis of schizophrenia were less likely to have their smoking habit in their medical records compared with those with no diagnosis.		-	Patients with schizophrenia were less likely to have their smoking habits recorded.
Abstinence from smoking in patients with and	[4]	Patients with schizoid personality disorder had higher rates of		-	Patients with schizoid personality disorder were less

without schizoid personality disorder		maintenance of abstinence after quitting smoking compared with those without schizoid personality disorder.		likely to have their smoking habits recorded.
Control of type 1 diabetes in patients with and without anxiety	[5]	Patients with anxiety (measured with a scale) had significantly poorer diabetes control compared with those without anxiety.	-	Patients with anxiety had poorer diabetes control.
Diagnosis of hypertension in patients with and without depression, anxiety, or schizophrenia	[6]	Patients with depression, anxiety or schizophrenia are less likely to have a diagnosis of hypertension.	-	Patients with depression, anxiety or schizophrenia are less likely to have a diagnosis of hypertension.
Medication use in patients with and without schizophrenia or bipolar disorder	[7]	Patients with schizophrenia or bipolar disorder use less antihypertensive and lipid-lowering drugs.	-	Patients with schizophrenia or bipolar disorder use less antihypertensive and lipid-lowering drugs.

Footnotes

1. Systematic review [82].
2. Systematic review [82].
3. Systematic review [82]
4. Systematic review [82]
5. Systematic review [82]
6. Systematic review [82]
7. Systematic review [82]

References

[82] Ayerbe L, Forgnone I, Foguet-Boreu Q, González E, Addo J, Ayis S : Disparities in the management of cardiovascular risk factors in patients with psychiatric disorders: a systematic review and meta-analysis. Psychological medicine 2018;48(16):2693-2701

5. Hypertension Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
A multicomponent intervention including hypertension screening is associated with reductions in the number of cardiovascular-related hospital admissions, but not mortality. Screening is associated with no decrement in quality of life or psychological distress.	

Certainty of the Evidence	High

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Racialized individuals are disproportionally affected by hypertension-mediated complications, which may be due to disparities in hypertension awareness, treatment, and control within these groups. Community-based screening such as screening for hypertension in retail pharmacies can help reduce cardiovascular morbidity, likely by identifying individuals not accessing primary care.	

5.1 – Cardiovascular health awareness program vs. no intervention

PICO
Population: Adults aged 65 years or older
Intervention: Cardiovascular health awareness program
Comparator: No intervention

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		No intervention	Cardiovascular health awareness program		
Hospital admissions for cardiovascular disease	Rate ratio: 0.91 (CI 95% 0.86 - 0.97) Based on data from 140642 participants in 1 studies[1] Follow up 1 year	**30.13** per 1000	**27.9** per 1000	Moderate	Intervention participants had fewer annual hospital admissions for cardiovascular disease compared with control participants.
		Difference: **fewer per 1000**			
Cardiovascular mortality	Rate ratio: 0.86 (CI 95% 0.73 - 1.01) Based on data from 140642 participants in 1 studies[2] Follow up 1 year	**4.66** per 1000	**3.88** per 1000	Moderate	There were no statistically significant differences in cardiovascular mortality among admitted residents.
		Difference: **fewer per 1000**			

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All-cause mortality	Rate ratio: 0.98 (CI 95% 0.92 - 1.03) Based on data from 140642 participants in 1 studies[3] Follow up 1 year	**34.55** per 1000	**33.98** per 1000	Moderate	There were no statistically significant differences in all-cause mortality among admitted residents.
		Difference: **fewer per 1000**			

Footnotes
1. Systematic review [76].
2. Systematic review [76].
3. Systematic review [76].

References
[76] Guirguis-Blake JM, Evans CV, Webber EM, Coppola EL, Perdue LA, Weyrich MS : Screening for Hypertension in Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(16):1657-1669

5.2 – Initial office blood pressure measurement vs. ambulatory blood pressure measurement

PICO
Population: Adults aged 18 years or older
Intervention: Initial office blood pressure measurement
Comparator: Ambulatory blood pressure measurement (reference standard)

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence** (Quality of evidence)	**Plain language summary**
		ABPM reference standard	Initial OBPM		
Sensitivity[1]	: 0.54 (CI 95% 0.37 - 0.7) Based on data from 11309 participants in 15 studies[2]	per 1000	per 1000	**Low** [3]	Screening for hypertension using an initial OBPM test had low sensitivity compared with an ABPM reference standard.
		Difference: **fewer per 1000**			
Specificity[4]	: 0.9 (CI 95% 0.84 - 0.95) Based on data from 11309 participants in 15 studies[5]	per 1000	per 1000	**Low** [6]	Screening for hypertension using an initial OBPM test had adequate specificity compared with an ABPM reference standard.
		Difference: **fewer per 1000**			

Outcome		**Absolute effect estimates**		

	Study results and measurements	ABPM reference standard	Initial OBPM	Certainty of the Evidence	Plain language summary
Sensitivity[1]	: 0.54 (CI 95% 0.37 - 0.7) Based on data from 11309 participants in 15 studies[2]	-		Low [3]	Screening for hypertension using an initial OBPM test had low sensitivity compared with an ABPM reference standard.
Specificity[4]	: 0.9 (CI 95% 0.84 - 0.95) Based on data from 11309 participants in 15 studies[5]	-		Low [6]	Screening for hypertension using an initial OBPM test had adequate specificity compared with an ABPM reference standard.

Footnotes

1. Examined the test accuracy of an initial screening OBPM at a threshold of ≥140/90 mmHg to identify hypertension detected by ABPM.
2. Systematic review [76].
3. Inconsistency: serious. The magnitude of statistical heterogeneity was high, with I^2 = 97.8%.; Imprecision: serious.
4. Examined the test accuracy of an initial screening OBPM at a threshold of ≥140/90 mmHg to identify hypertension detected by ABPM.
5. Systematic review [76].
6. Inconsistency: serious. The magnitude of statistical heterogeneity was high, with I^2 = 96.7%.; Imprecision: serious.

References

[76] Guirguis-Blake JM, Evans CV, Webber EM, Coppola EL, Perdue LA, Weyrich MS : Screening for Hypertension in Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(16):1657-1669

5.3 – Repeat office blood pressure measurement vs. ambulatory blood pressure measurement

PICO

Population: Adults aged 18 years or older
Intervention: Repeat office blood pressure measurement
Comparator: Ambulatory blood pressure measurement (reference standard)

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		ABPM reference standard	Repeat OBPM		

Sensitivity[1]	: 0.8 (CI 95% 0.68 - 0.88) Based on data from 53183 participants in 8 studies[2]	-	Low [3]	In adults with a previously detected elevated OBPM, a repeat confirmatory OBPM had adequate sensitivity compared with an ABPM reference standard.
Specificity[4]	: 0.55 (CI 95% 0.42 - 0.66) Based on data from 53183 participants in 8 studies[5]	-	Low [6]	In adults with a previously detected elevated OBPM, a repeat confirmatory OBPM had low specificity compared with an ABPM reference standard.

Footnotes

1. Examined the test accuracy of an initial screening OBPM at a threshold of ≥140/90 mmHg to identify hypertension detected by ABPM.
2. Systematic review [76].
3. Inconsistency: serious. The magnitude of statistical heterogeneity was high, with I^2 = 97.8%.; Imprecision: serious.
4. Examined the test accuracy of an initial screening OBPM at a threshold of ≥140/90 mmHg to identify hypertension detected by ABPM.
5. Systematic review [76].
6. Inconsistency: serious. The magnitude of statistical heterogeneity was high, with I^2 = 96.7%.; Imprecision: serious.

References

[76] Guirguis-Blake JM, Evans CV, Webber EM, Coppola EL, Perdue LA, Weyrich MS : Screening for Hypertension in Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(16):1657-1669

5.4 – Home blood pressure measurement vs. ambulatory blood pressure measurement

PICO

Population: Adults aged 18 years or older
Intervention: Home blood pressure measurement
Comparator: Ambulatory blood pressure measurement (reference standard)

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		ABPM reference standard	HBPM		

Sensitivity	: 0.84 (CI 95% 0.76 - 0.9) Based on data from 1001 participants in 4 studies[1]	-	Low [2]	In adults with a previously detected elevated OBPM, a confirmatory HBPM had adequate sensitivity compared with an ABPM reference standard.
Specificity	: 0.6 (CI 95% 0.48 - 0.71) Based on data from 1001 participants in 4 studies[3]	-	Low [4]	In adults with a previously detected elevated OBPM, a confirmatory HBPM had low specificity compared with an ABPM reference standard.

Footnotes

1. Systematic review [76].
2. Inconsistency: serious. The magnitude of statistical heterogeneity was high, with I^2 = 85.1%.; Imprecision: serious.
3. Systematic review [76].
4. Inconsistency: serious. The magnitude of statistical heterogeneity was high, with I^2 = 77.8%.; Imprecision: serious.

References

[76] Guirguis-Blake JM, Evans CV, Webber EM, Coppola EL, Perdue LA, Weyrich MS : Screening for Hypertension in Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(16):1657-1669

5.5 – Home blood pressure measurement vs. ambulatory blood pressure measurement

PICO

Population: Adults aged 18 years or older
Intervention: Self office blood pressure measurement
Comparator: Ambulatory blood pressure measurement (reference standard)

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		ABPM reference standard	Self OBPM		
Sensitivity[1]	: 0.92 (CI 95% 0.85 - 0.96) Based on data from 203 participants in 1 studies[2]	-		-	In adults with a previously detected elevated OBPM, a confirmatory self-measured OBPM had high sensitivity compared with an

				ABPM reference standard.
Specificity[3]	: 0.25 (CI 95% 0.16 - 0.35) Based on data from 203 participants in 1 studies	-	-	In adults with a previously detected elevated OBPM, a confirmatory self-measured OBPM had low specificity compared with an ABPM reference standard.

Footnotes
1. Examined the diagnostic accuracy of confirmatory HBPM at a threshold of ≥135/85 mmHg to identify hypertension detected by ABPM.
2. Systematic review [76].
3. Examined the diagnostic accuracy of confirmatory HBPM at a threshold of ≥135/85 mmHg to identify hypertension detected by ABPM.

References
[76] Guirguis-Blake JM, Evans CV, Webber EM, Coppola EL, Perdue LA, Weyrich MS : Screening for Hypertension in Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(16):1657-1669

5.6 – Truncated blood pressure measurement (for borderline hypertension) vs. ambulatory blood pressure measurement

PICO
Population: Adults aged 18 years or older
Intervention: Truncated 6-hour ambulatory blood pressure measurement (for borderline hypertension)
Comparator: Ambulatory blood pressure measurement (reference standard)

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		ABPM reference standard	Truncated ABPM (for borderline hypertension)		
Sensitivity[1]	: 0.94 (CI 95% -) Based on data from 126 participants in 1 studies[2]	-		-	In adults with a previously detected elevated OBPM, a confirmatory truncated 6-hour ABPM had high sensitivity

				compared with a full 24-hour ABPM test.
Specificity[3]	: 0.76 (CI 95% -) Based on data from 126 participants in 1 studies[4]	-	-	In adults with a previously detected elevated OBPM, a confirmatory truncated 6-hour ABPM had adequate specificity compared with a full 24-hour ABPM test.

Footnotes

1. Examined the test accuracy of a confirmatory truncated (6-hour) ABPM compared with a full 24-hour ABPM test, for the subgroup with borderline hypertension.
2. Systematic review [76].
3. Examined the test accuracy of a confirmatory truncated (6-hour) ABPM compared with a full 24-hour ABPM test, for the subgroup with borderline hypertension.
4. Systematic review [76].

References

[76] Guirguis-Blake JM, Evans CV, Webber EM, Coppola EL, Perdue LA, Weyrich MS : Screening for Hypertension in Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(16):1657-1669

5.7 – Truncated blood pressure measurement (for white coat hypertension) vs. ambulatory blood pressure measurement

PICO

Population: Adults aged 18 years or older
Intervention: Truncated 6-hour ambulatory blood pressure measurement (for suspected white coat hypertension)
Comparator: Ambulatory blood pressure measurement (reference standard)

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		ABPM reference standard	Truncated ABPM (for suspected white coat hypertension)		

Sensitivity[1]	: 0.89 (CI 95% -) Based on data from 137 participants in 1 studies[2]	-	-	In adults with a previously detected elevated OBPM, a confirmatory truncated 6-hour ABPM had high sensitivity compared with a full 24-hour ABPM test.
Specificity[3]	: 0.7 (CI 95% -) Based on data from 137 participants in 1 studies[4]	-	-	In adults with a previously detected elevated OBPM, a confirmatory truncated 6-hour ABPM had adequate specificity compared with a full 24-hour ABPM test.

Footnotes

1. Examined the test accuracy of a confirmatory truncated (6-hour) ABPM compared with a full 24-hour ABPM test, for the subgroup with suspected white coat hypertension.
2. Systematic review [76].
3. Examined the test accuracy of a confirmatory truncated (6-hour) ABPM compared with a full 24-hour ABPM test, for the subgroup with suspected white coat hypertension.
4. Systematic review [76].

References

[76] Guirguis-Blake JM, Evans CV, Webber EM, Coppola EL, Perdue LA, Weyrich MS : Screening for Hypertension in Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(16):1657-1669

5.8 – Screening for hypertension vs. no screening

PICO

Population: Adults aged 18 years or older
Intervention: Screening and diagnosis of hypertension
Comparator: No screening

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No screening	Screening and diagnosis of hypertension		

Quality of life	Based on data from 5150 participants in 13 studies[1]	Limited evidence suggests that screening is associated with no decrement in quality of life or psychological distress.	Low	Limited evidence suggests that screening is associated with no decrement in quality of life or psychological distress.
Tolerability/sleep disturbance	Based on data from 5150 participants in 13 studies[2]	ABPM follow-up testing is associated with minor adverse events including temporary sleep disturbance, arm discomfort, and bruising.	Low	ABPM follow-up testing is associated with minor discomfort and sleep disturbance.
Absenteeism	Based on data from 5150 participants in 13 studies[3]	Scant evidence on screening's effect on absenteeism is mixed.	Low	Scant evidence on absenteeism is mixed.

Footnotes
1. Systematic review [76]
2. Systematic review [76]
3. Systematic review [76]

References
[76] Guirguis-Blake JM, Evans CV, Webber EM, Coppola EL, Perdue LA, Weyrich MS : Screening for Hypertension in Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(16):1657-1669

5.9 – Equity outcomes: hypertension care by race/ethnicity

PICO
Population: Adults aged 16 years or older
Intervention: Equity outcomes - Hypertension care by race/ethnicity
Comparator: N/A

Summary of findings table

Outcome	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		No comparator	Equity outcomes - CVD risk assessment -by gender		

Hypertension control (European vs Turkish populations)	Odds ratio: 0.88 (CI 95% 0.63 - 1.22) Based on data from 629 participants in 2 studies[1]	-	-	Turkish origin populations had similar rates of blood pressure control compared with European host populations.
Hypertension treatment (European vs Turkish populations)	Odds ratio: 0.88 (CI 95% 0.54 - 1.41) Based on data from 1462 participants in 2 studies[2]	-	-	Turkish origin populations had similar rates of hypertension treatment compared with European host populations.
Hypertension treatment (European vs Moroccan populations)	Odds ratio: 0.77 (CI 95% 0.6 - 0.97) Based on data from 1264 participants in 2 studies[3]	-	-	Compared with European host populations, Moroccan origin populations were less likely to be treated for hypertension.
Hypertension treatment (European vs South Asian populations)	Odds ratio: 1.25 (CI 95% 0.72 - 2.17) Based on data from 1740 participants in 2 studies[4]	-	-	South Asian origin populations had similar rates of hypertension treatment compared with European host populations.
Hypertension treatment (European vs African populations)	Odds ratio: 1.49 (CI 95% 1.18 - 1.88) Based on data from 4058 participants in 6 studies[5]	-	Low [6]	Compared with European host populations, African origin populations were more likely to be treated for hypertension.
Hypertension control (European vs Moroccan populations)	Odds ratio: 0.78 (CI 95% 0.53 - 1.13) Based on data from 515 participants in 2 studies[7]	-	-	Compared with European host populations, Moroccan origin populations were less likely to have their blood pressure controlled.

Hypertension control (European vs African populations)	Odds ratio: 0.56 (CI 95% 0.4 - 0.78) Based on data from 2713 participants in 6 studies[8]	-	Low [9]	Compared with European host populations, African origin populations were less likely to have their blood pressure controlled.
Hypertension awareness (European vs African populations)	Odds ratio: 1.26 (CI 95% 1.02 - 1.56) Based on data from 9817 participants in 5 studies[10]	-	Low [11]	Compared with European host populations, African origin populations were more likely to be aware of hypertension.
Hypertension control (European vs South Asian populations)	Odds ratio: 0.76 (CI 95% 0.57 - 1.03) Based on data from 781 participants in 2 studies[12]	-	-	Compared with European host populations, South Asian origin populations were less likely to have their blood pressure controlled.
Hypertension awareness (European vs Moroccan populations)	Odds ratio: 0.79 (CI 95% 0.62 - 1.0) Based on data from 1212 participants in 2 studies[13]	-	-	Compared with European host populations, Moroccan origin populations were less likely to be aware of hypertension.
Hypertension awareness (European vs South Asian populations)	Odds ratio: 1.15 (CI 95% 1.02 - 1.3) Based on data from 8682 participants in 5 studies[14]	-	-	Compared with European host populations, South Asian origin populations were more likely to be aware of hypertension.
Hypertension awareness (European vs Turkish populations)	Odds ratio: 0.81 (CI 95% 0.65 - 1.0) Based on data from 1460 participants in 2 studies[15]	-	-	Compared with European host populations, Turkish origin populations were less likely to be aware of hypertension.

Hypertension awareness (European vs Chinese populations)	Odds ratio: 1.06 (CI 95% 0.79 - 1.41) Based on data from 6399 participants in 1 studies[16]	-	-	Chinese origin populations had similar rates of hypertension awareness compared with European host populations.

Footnotes

1. Systematic review [77].
2. Systematic review [77].
3. Systematic review [77].
4. Systematic review [77].
5. Systematic review [77].
6. Inconsistency: no serious. I2 = 61% (p=0.01);
7. Systematic review [77].
8. Systematic review [77].
9. Inconsistency: no serious. I2 = 67% (p=0.002);
10. Systematic review [77].
11. Inconsistency: no serious. I2 = 63% (p = 0.01);
12. Systematic review [77].
13. Systematic review [77].
14. Systematic review [77].
15. Systematic review [77].
16. Systematic review [77].

References

[77] van der Linden EL, Couwenhoven BN, Beune EJAJ, Daams JG, van den Born B-JH, Agyemang C : Hypertension awareness, treatment and control among ethnic minority populations in Europe: a systematic review and meta-analysis. Journal of hypertension 2021;39(2):202-213

5.10 – Equity outcomes : hypertension care in patients with mental health disorders

PICO

Population: Adults aged 18 years or older
Intervention: Equity outcomes - Hypertension care in patients with mental health disorders
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - Hypertension care in patients with mental health disorders		

Blood pressure recorded (Schizophrenia vs healthy control)	Odds ratio: 0.43 (CI 95% -) Based on data from 485 participants in 1 studies[1] Follow up 3 years	-	-	Patients with schizophrenia were approximately half as likely to have their blood pressure recorded compared with healthy individuals.
Adherence to hypertension treatment (Schizophrenia vs healthy control)	Odds ratio: 0.75 (CI 95% 0.63 - 0.89) Based on data from 2454840 participants in 1 studies[2] Follow up 1 year	-	-	Patients with schizophrenia were less likely to adhere to hypertension medication compared with healthy individuals.
Adherence to hypertension treatment (Bipolar disorder vs healthy control)	Odds ratio: 0.79 (CI 95% 0.64 - 0.98) Based on data from 2454840 participants in 1 studies[3] Follow up 1 year	-	-	Patients with bipolar disorder were less likely to adhere to hypertension medication compared with healthy individuals.
Hypertension treatment (Schizophrenia vs healthy control)	Hazard ratio: 0.37 (CI 95% 0.22 - 0.61) Based on data from 10915 participants in 1 studies[4] Follow up 35 years	-	-	Patients with schizophrenia had lower rate of prescription of antihypertensive medication compared with healthy individuals.
Cardiovascular drug use (Schizophrenia vs healthy control)	(CI 95% -) Based on data from 1061530 participants in 1 studies[5] Follow up 11 years	-	-	Patients with schizophrenia had lower prescription rate of angiotensin-converting-enzyme inhibitors, or angiotensin receptor blockers, but higher use of diuretics.

Cardiovascular drug use (Bipolar disorder vs healthy control)	(CI 95% -) Based on data from 1061530 participants in 1 studies[6] Follow up 11 years	-	-	Patients with bipolar disorder had lower prescription rate of angiotensin-converting-enzyme inhibitors, or angiotensin receptor blockers, but higher use of diuretics.

Footnotes

1. Systematic review [78].
2. Systematic review [78].
3. Systematic review [78].
4. Systematic review [78].
5. Systematic review [78].
6. Systematic review [78] . Baseline/comparator Control arm of reference used for intervention .

References

[78] Ayerbe L, Forgnone I, Addo J, Siguero A, Gelati S, Ayis S : Hypertension risk and clinical care in patients with bipolar disorder or schizophrenia; a systematic review and meta-analysis. Journal of affective disorders 2018;225 665-670

6. HIV Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Rapid voluntary counselling and testing for HIV in health facilities and communities is associated with a reduction in HIV incidence, as well as an increase in testing uptake and receipt of test results. Compared with standard facility-based HIV testing services, HIV self-testing is associated with increased testing uptake.	

Certainty of the Evidence	Moderate

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Screening for HIV is significantly lower among older adults, males, and socioeconomically disadvantaged groups. Despite higher testing rates, Black patients are less likely to initiate HIV care compared with White patients. Rapid voluntary counselling and testing for HIV in health facilities, as well as HIV self-testing, may prove an effective strategy to help reach marginalized groups that report low access to HIV testing and care services. Pre- and post-test counselling is also important.	

6.1 – Rapid voluntary counselling and testing vs. conventional HIV testing

PICO
Population: Marginalized populations at high risk for HIV exposure
Intervention: Rapid voluntary counselling and testing (VCT)
Comparator: Conventional HIV testing

Summary of findings table

Outcome	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Conventional HIV testing	Rapid voluntary counselling and testing (VCT)		
Uptake of HIV testing[1]	Relative risk: 2.95 (CI 95% 1.69 - 5.16) Based on data from 80400 participants in 4 studies[2] Follow up 12 to 36 months	Difference: **282 more per 1000** (CI 95% 100 more - 602 more)		Moderate	Rapid VCT was associated with a threefold increase in HIV-testing uptake
Receipt of HIV results[3]	Relative risk: 2.14 (CI 95% 1.08 - 4.24) Based on data from 18426	Difference: **243 more per 1000** (CI 95% 17 more - 691 more)		Moderate	Rapid VCT was associated with a twofold increase in the receipt of test results

	participants in 3 studies[4] Follow up 12 to 24 months			
Combined effect of repeat testing[5]	Relative risk: 2.28 (CI 95% 0.35 - 15.07) Based on data from 10706 participants in 1 studies[6] Follow up 36 months	Difference: **124 more per 1000** (CI 95% 63 fewer - 1000 more)	Moderate	Participants randomized to rapid VCT were twice more likely to have repeat HIV tests
HIV incidence[7]	Relative risk: 0.89 (CI 95% 0.63 - 1.24) Based on data from 115300 participants in 1 studies[8] Follow up 36 months	Difference: **9 fewer per 1000** (CI 95% 30 fewer - 19 more)	Low	HIV incidence did decrease in the rapid testing group compared with control group, but this effect was not statistically significant

Footnotes

1. Rapid VCT consists of three components: voluntary enrolment; rapid testing (results within 24 h); counseling and delivery of results and treatment options. Conventional approaches refers to HIV testing in health facilities using traditional laboratory testing approaches where the client has to wait for more than 24 h before results are received).
2. Systematic review [93].
3. Rapid VCT consists of three components: voluntary enrolment; rapid testing (results within 24 h); counseling and delivery of results and treatment options. Conventional approaches refers to HIV testing in health facilities using traditional laboratory testing approaches where the client has to wait for more than 24 h before results are received).
4. Systematic review [93].
5. Rapid VCT consists of three components: voluntary enrolment; rapid testing (results within 24 h); counseling and delivery of results and treatment options. Conventional approaches refers to HIV testing in health facilities using traditional laboratory testing approaches where the client has to wait for more than 24 h before results are received).
6. Systematic review [93].
7. Rapid VCT consists of three components: voluntary enrolment; rapid testing (results within 24 h); counseling and delivery of results and treatment options. Conventional approaches refers to HIV testing in health facilities using traditional laboratory testing approaches where the client has to wait for more than 24 h before results are received).
8. Systematic review [93] . Baseline/comparator Control arm of reference used for intervention .

References

[93] Pottie K, Medu O, Welch V, Dahal GP, Tyndall M, Rader T, Wells G : Effect of rapid HIV testing on HIV incidence and services in populations at high risk for HIV exposure: an equity-focused systematic review. BMJ open 2014;4(12):e006859

6.2 – Rapid voluntary counselling and testing vs. conventional HIV testing

PICO
Population: General population
Intervention: HIV self-testing
Comparator: Standard facility-based HIV testing

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Standard facility-based HIV testing	HIV self-testing		
Uptake of HIV testing	Relative risk: 2.09 (CI 95% 1.69 - 2.58) Based on data from participants in 13 studies[1]	-		Low	HIV self-testing doubled testing uptake compared to standard facility-based HIV testing.
HIV positivity among those tested	Relative risk: 0.81 (CI 95% 0.45 - 1.47) Based on data from participants in 8 studies[2]	-		Moderate	There was no difference in HIV positivity with HIV self-testing compared to standard facility-based HIV testing.
Linkage to HIV care or treatment among those diagnosed	Relative risk: 0.95 (CI 95% 0.79 - 1.13) Based on data from participants in 6 studies[3]	-		Moderate	There was no difference in linkage to care or treatment with HIV self-testing among those diagnosed compared to standard facility-based HIV testing.
Social harms or adverse events	Relative risk: 2.52 (CI 95% 0.52 - 12.13) Based on data from participants in 4 studies[4]	-		Very low	There was no difference in occurrence of social harms or adverse events with HIV self-testing compared to standard facility-based HIV testing.

Footnotes
1. Systematic review [89].
2. Systematic review [89].
3. Systematic review [89].
4. Systematic review [89].

References

[89] Jamil MS, Eshun-Wilson I, Witzel TC, Siegfried N, Figueroa C, Chitembo L, Msimanga-Radebe B, Pasha MS, Hatzold K, Corbett E, Barr-DiChiara M, Rodger AJ, Weatherburn P, Geng E, Baggaley R, Johnson C : Examining the effects of HIV self-testing compared to standard HIV testing services in the general population: A systematic review and meta-analysis. EClinicalMedicine 2021;38 100991

6.3 – Equity outcomes: HIV screening by sociodemographic characteristics

PICO

Population: Adults aged 18 years or older
Intervention: Equity outcomes - HIV screening by sociodemographic characteristics
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - HIV screening by sociodemographic traits		
Screening uptake (younger vs older adults)	Odds ratio: 0.6 (CI 95% 0.4 - 0.9) Based on data from 1231 participants in 1 studies[1]	-		-	Older adults (age ≥50) were 40% less likely to have been tested for HIV in the past year than younger adults (age <50)
Screening uptake (male vs female)	Odds ratio: 0.9 (CI 95% 0.6 - 1.3) Based on data from 1231 participants in 1 studies[2]	-		-	Males were slightly less likely to have been tested for HIV in the past year than females
Screening uptake (Black vs White race)	Odds ratio: 2.0 (CI 95% 1.1 - 3.7) Based on data from 1231 participants in 1 studies[3]	-		-	Black individuals were twice as likely to have been tested for HIV in the past year than than White individuals
Screening uptake (Hispanic vs White race)	Odds ratio: 0.6 (CI 95% 0.4 - 1.0) Based on data from 1231 participants in 1 studies[4]	-		-	Hispanic individuals were 40% less likely to have been tested for HIV in the past year than than White individuals

Screening uptake (low vs high education)	Odds ratio: 0.5 (CI 95% 0.2 - 0.8) Based on data from 1231 participants in 1 studies[5]	-	-	Individuals with less than a high school diploma were half as likely to have been tested for HIV in the past year than those with a college degree or higher
Screening uptake (sexual minority vs heterosexual)	Odds ratio: 1.6 (CI 95% 1.0 - 2.5) Based on data from 1231 participants in 1 studies[6]	-	-	Sexual minorities (men who have sex with men) were more likely to have been tested for HIV in the past year than those identifying as heterosexual

Footnotes

1. Primary study [95] .
2. Primary study [95] .
3. Primary study [95] .
4. Primary study [95] .
5. Primary study [95] .
6. Primary study [95] .

References

[95] Ford CL, Lee S-J, Wallace SP, Nakazono T, Newman PA, Cunningham WE : HIV testing among clients in high HIV prevalence venues: disparities between older and younger adults. AIDS care 2015;27(2):189-97

PICO

Population: Older adults aged 50 to 64 years
Intervention: Equity outcomes - HIV screening by sociodemographic factors
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - HIV screening by sociodemographic factors		
Screening uptake (male vs female)	Odds ratio: 2.14 (CI 95% 1.92 - 2.39) Based on data from 137936 participants in 1 studies[1]	-		-	Males were more likely to have been tested for HIV in the past year than females

Screening uptake (unemployed vs employed)	Odds ratio: 1.26 (CI 95% 1.11 - 1.43) Based on data from 137936 participants in 1 studies[2]	-	-	Unemployed individuals were more likely to have been tested for HIV in the past year than employed individual
Screening uptake (low vs high education)	Odds ratio: 0.74 (CI 95% 0.65 - 0.84) Based on data from 137936 participants in 1 studies[3]	-	-	Individuals with less than a high school degree were less likely to have been tested for HIV in the past year than more educated individuals
Screening uptake (low vs high income)	Odds ratio: 1.48 (CI 95% 1.25 - 1.74) Based on data from 137936 participants in 1 studies[4]	-	-	Those belonging to low-income households were more likely to have been tested for HIV in the past year than high-income households
Screening uptake (past-year clinic visit vs no visit)	Odds ratio: 2.32 (CI 95% 1.92 - 2.74) Based on data from 137936 participants in 1 studies[5]	-	-	-
Screening uptake (HIV risk behaviors vs no risk behaviors)	Odds ratio: 3.42 (CI 95% 2.61 - 4.49) Based on data from 137936 participants in 1 studies[6]	-	-	-

Screening uptake (Black vs White race)	Odds ratio: 3.47 (CI 95% 2.82 - 4.25) Based on data from 137936 participants in 1 studies[7]	-	-	-
Screening uptake (Hispanic vs White race)	Odds ratio: 2.06 (CI 95% 1.5 - 2.84) Based on data from 137936 participants in 1 studies[8]	-	-	Hispanic individuals were more likely to have been tested for HIV in the past year than White individuals

Footnotes

1. Primary study [96] .
2. Primary study [96] .
3. Primary study [96] .
4. Primary study [96] .
5. Primary study [96] .
6. Primary study [96] .
7. Primary study [96] .
8. Primary study [96] .

References

[96] Ford CL, Godette DC, Mulatu MS, Gaines TL : Recent HIV Testing Prevalence, Determinants, and Disparities Among U.S. Older Adult Respondents to the Behavioral Risk Factor Surveillance System. Sexually transmitted diseases 2015;42(8):405-10

PICO

Population: Adults aged 18 years or older with HIV infection
Intervention: Equity outcomes - HIV care by sociodemographic characteristics
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - HIV screening by sociodemographic traits		
Non-initiation of care (Black vs White race)[1]	Relative risk: 1.57 (CI 95% 1.38 - 1.78) Based on data from 8913 participants in 1 studies[2]	-		-	Non-Hispanic Black patients were less likely to initiate HIV care compared with non-Hispanic White patients

Non-initiation of care (males vs females)[3]	Relative risk: 1.31 (CI 95% 1.15 - 1.48) Based on data from 8913 participants in 1 studies[4]	-	-	Males were less likely to initiate care compared with females
Non-initiation of care (US-born vs foreign-born)[5]	Relative risk: 1.21 (CI 95% 1.08 - 1.34) Based on data from 8913 participants in 1 studies[6]	-	-	US-born patients were less likely to initiate care compared with foreign-born patients
Non-initiation of care (no AIDS vs AIDS diagnosis)[7]	Relative risk: 33.05 (CI 95% 18.98 - 57.54) Based on data from 8913 participants in 1 studies[8]	-	-	Patients not diagnosed with AIDS within three months of the HIV diagnosis were less likely to initiate care compared with those diagnosed with AIDS
Non-initiation of care (male-to-male vs heterosexual mode of HIV transmission)[9]	Relative risk: 0.73 (CI 95% 0.65 - 0.82) Based on data from 8913 participants in 1 studies[10]	-	-	Patients with male-to-male sexual contact as the mode of HIV transmission were more likely to initiate care compared with those with heterosexual mode of transmission
Linkage to care (high vs low poverty)	Relative risk: 0.96 (CI 95% 0.94 - 0.97) Based on data from 33204 participants in 1 studies[11]	-	-	Rates of linkage to care were significantly lower among men and women living in counties with higher versus lower poverty

Linkage to care (low vs high health insurance coverage)	Relative risk: 0.93 (CI 95% 0.92 - 0.94) Based on data from 33204 participants in 1 studies[12]	-	-	Rates of linkage to care were significantly lower among men and women living in counties with lower versus higher health insurance coverage
Linkage to care (low vs high education)	Relative risk: 0.97 (CI 95% 0.96 - 0.98) Based on data from 33204 participants in 1 studies[13]	-	-	Rates of linkage to care were significantly lower among men and women living in counties with lower versus higher education levels

Footnotes

1. Referent: White race
2. Primary study [94] .
3. Referent: female sex at birth
4. Primary study [94] .
5. Referent: foreign-born
6. Primary study [94] .
7. Referent: AIDS diagnosis within 3 months of HIV diagnosis
8. Primary study [94] .
9. Referent: heterosexual mode of HIV transmission
10. Primary study [94] .
11. Primary study [97] .
12. Primary study [97] .
13. Primary study [97] .

References

[94] Trepka MJ, Sheehan DM, Fennie KP, Mauck DE, Lieb S, Maddox LM, Niyonsenga T : Racial/Ethnic Disparities in Failure to Initiate HIV Care: Role of HIV Testing Site, Individual Factors, and Neighborhood Factors, Florida, 2014-2015. Journal of health care for the poor and underserved 2018;29(3):1153-1175

[97] Gillot M, Gant Z, Hu X, Satcher Johnson A : Linkage to HIV Medical Care and Social Determinants of Health Among Adults With Diagnosed HIV Infection in 41 States and the District of Columbia, 2017. Public health reports (Washington, D.C. : 1974) 137(5):888-900

7. Hepatitis C Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Direct antiviral therapy (DAA) is associated with lower rates of cardiovascular events and hepatocellular carcinoma. DAA therapy is also associated with sustained virological response (SVR) rates greater than 95%, and achieving an SVR after antiviral therapy is associated with decreased risk of all-cause mortality and hepatocellular carcinoma.	

Certainty of the Evidence	Moderate

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Screening uptake for hepatitis C virus is significantly lower among females, those without insurance, and those residing in low socioeconomic areas. Linkage to HCV treatment is significantly lower among men compared with women, despite higher screening rates. Pre- and post-test counselling is important, regardless of the testing modality and whether or not testing is anonymous.	

7.1 – Risk factor screening vs. birth cohort screening

PICO
Population: Adults aged 20 years or older
Intervention: Risk factor screening
Comparator: Birth cohort screening

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Birth cohort screening	Risk factor screening		
Population tested	Based on data from 5917 participants in 1 studies[1]	Risk factor screening guidelines would screen 24.7% of the US general population, compared with 45% using birth cohort screening guidelines.		Low	A larger proportion of the population would be tested with birth cohort screening guidelines compared with risk factor guidelines.
HCV cases detected	Based on data from 5917 participants in 1 studies[2]	Risk factor screening would detect 82% of the US general population, compared with 76% using birth cohort screening.		Low	Risk-factor screening would detect a greater proportion of HCV cases than the birth-cohort strategy.

Number needed to screen to identify 1 HCV case	Based on data from 5917 participants in 1 studies[3]	The number needed to screen to identify 1 HCV case using the risk factor strategy was 14.6, compared with 28.7 using the birth cohort screening.	Low	The number needed to screen to identify 1 HCV case using the risk factor strategy was lower compared with the birth cohort strategy

Footnotes
1. Systematic review [102]
2. Systematic review [102]
3. Systematic review [102]

References
[102] Owens DK, Davidson KW, Krist AH, Barry MJ, Cabana M, Caughey AB, Donahue K, Doubeni CA, Epling JW, Kubik M, Ogedegbe G, Pbert L, Silverstein M, Simon MA, Tseng C-W, Wong JB : Screening for Hepatitis C Virus Infection in Adolescents and Adults: US Preventive Services Task Force Recommendation Statement. JAMA 2020;323(10):970-975

7.2 – DAA therapy vs. no therapy

PICO
Population: Adults with HCV infection
Intervention: After direct acting antiviral (DAA) therapy
Comparator: Before direct acting antiviral (DAA) therapy

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Before DAA therapy	After DAA therapy		
Quality of life	Based on data from 2404 participants in 10 studies[1]	There were small, short-term improvements in quality of life scores after DAA therapy compared with before.		Low	There were small, short-term improvements in quality of life scores after DAA therapy compared with before.
Mortality	Based on data from 3848 participants in 31 studies[2]	There were no deaths in 21 studies; mortality was low in the remaining 10 studies (overall mortality across all 31 studies was 0.4% [17/3848]).		Low	There were no deaths in 21 studies; mortality was low in the remaining 10 studies.

Cardiovascular events	Based on data from 58892 participants in 3 studies[3] Follow up 1 to 7 years	Compared with interferon-based therapy or antiviral therapy, DAA therapy was associated with lower rates of cardiovascular events.	Low	DAA therapy was associated with lower rates of cardiovascular events.
Hepatocellular carcinoma	Based on data from 58892 participants in 3 studies[4] Follow up 1 to 7 years	Compared with interferon-based therapy or antiviral therapy, DAA therapy was associated with lower rates of hepatocellular cancer.	Low	DAA therapy was associated with lower rates of hepatocellular cancer.

Footnotes
1. Systematic review [90]
2. Systematic review [90]
3. Systematic review [90]
4. Systematic review [90]

References
[90] Chou R, Dana T, Fu R, Zakher B, Wagner J, Ramirez S, Grusing S, Jou JH : Screening for Hepatitis C Virus Infection in Adolescents and Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2020;

7.3 – After DAA therapy vs. before DAA therapy

PICO
Population: Adults with HCV infection
Intervention: Direct acting antiviral (DAA) therapy
Comparator: Placebo

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Placebo	DAA therapy		
Any adverse events	Relative risk: 1.12 (CI 95% 1.02 - 1.24) Based on data from 2113 participants in 4 studies[1]	-		Moderate	DAA regimens were associated with slightly increased risk of any adverse event
Serious adverse events	Relative risk: 1.9 (CI 95% 0.73 - 4.95) Based on data from 2113 participants in 4 studies[2]	-		Moderate	There were no differences between DAA regimens vs placebo in risk of serious adverse events

Withdrawal due to adverse events	Relative risk: 0.47 (CI 95% 0.14 - 1.58) Based on data from 2113 participants in 4 studies[3]	-	Moderate	There were no differences between DAA regimens vs placebo in risk of withdrawal due to adverse events
SVR rates	Based on data from 10181 participants in 49 studies[4] Follow up 12 weeks after completion of therapy	-	High	DAA therapy was associated with SVR rates greater than 95%

Footnotes
1. Systematic review [90].
2. Systematic review [90].
3. Systematic review [90].
4. Systematic review [90]

References
[90] Chou R, Dana T, Fu R, Zakher B, Wagner J, Ramirez S, Grusing S, Jou JH : Screening for Hepatitis C Virus Infection in Adolescents and Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2020;

7.4 – DAA therapy vs. other antiviral treatment

PICO
Population: Adults with HCV infection
Intervention: Direct acting antiviral (DAA) therapy
Comparator: Other antiviral treatment

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Other antiviral treatment	DAA therapy		
Any adverse events	Relative risk: 0.65 (CI 95% 0.5 - 0.84) Based on data from 459 participants in 2 studies[1]	-		Moderate	DAA therapy was associated with decreased risk of any adverse events

Serious adverse events	Relative risk: 0.08 (CI 95% 0.02 - 0.34) Based on data from 459 participants in 2 studies[2]	-	Moderate	DAA therapy was associated with decreased risk of serious adverse events
Withdrawal due to adverse events	Relative risk: 0.06 (CI 95% 0.01 - 0.29) Based on data from 459 participants in 2 studies[3]	-	Moderate	DAA therapy was associated with decreased risk of withdrawal due to adverse events

Footnotes

1. Systematic review [90].
2. Systematic review [90].
3. Systematic review [90] . Baseline/comparator Control arm of reference used for intervention .

References

[90] Chou R, Dana T, Fu R, Zakher B, Wagner J, Ramirez S, Grusing S, Jou JH : Screening for Hepatitis C Virus Infection in Adolescents and Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2020;

7.5 – Achieving SVR after DAA therapy vs. no SVR after DAA therapy

PICO

Population: Adults with HCV infection receiving DAA therapy
Intervention: Achieving sustained virological response (SVR) after DAA therapy
Comparator: No sustained virological response (SVR) after DAA therapy

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No SVR after DAA therapy	Achieving SVR after DAA therapy		
Liver-related mortality	Hazard ratio: 0.11 (CI 95% 0.04 - 0.27) Based on data from 5953 participants in 4 studies[1]	-		Moderate	SVR was associated with decreased risk of liver-related mortality

All-cause mortality	Hazard ratio: 0.4 (CI 95% 0.28 - 0.56) Based on data from 36986 participants in 13 studies[2] Follow up 1.5 to 10 years	-	Moderate	SVR was associated with significantly decreased risk of all-cause mortality
Hepatocellular carcinoma	Hazard ratio: 0.29 (CI 95% 0.23 - 0.38) Based on data from 84491 participants in 20 studies[3] Follow up 1.5 to 10 years	-	Moderate	SVR was associated with decreased risk of hepatocellular carcinoma
Cirrhosis	Hazard ratio: 0.36 (CI 95% 0.33 - 0.4) Based on data from 16735 participants in 3 studies[4]	-	Moderate	SVR was associated with decreased risk of cirrhosis

Footnotes

1. Systematic review [90].
2. Systematic review [90].
3. Systematic review [90].
4. Systematic review [90] . Baseline/comparator Control arm of reference used for intervention .

References

[90] Chou R, Dana T, Fu R, Zakher B, Wagner J, Ramirez S, Grusing S, Jou JH : Screening for Hepatitis C Virus Infection in Adolescents and Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2020;

7.6 – Equity outcomes: HCV screening by sociodemographic factors

PICO

Population: Adults born between 1945 and 1965
Intervention: Equity outcomes - HCV screening by sociodemographic factors
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - HCV screening by sociodemographic factors		

Screening uptake (Black vs White race)	Odds ratio: 1.34 (CI 95% 1.25 - 1.34) Based on data from 40561 participants in 1 studies[1] Follow up 1 year	-	-	African Americans were more likely to be screened for HCV than Caucasians
Screening uptake (men vs women)	Odds ratio: 1.18 (CI 95% 1.11 - 1.25) Based on data from 40561 participants in 1 studies Follow up 1 year	-	-	Men were more likely to be screened for HCV than women
Screening uptake by electronic health engagement	Odds ratio: 1.24 (CI 95% 1.17 - 1.31) Based on data from 40561 participants in 1 studies[2] Follow up 1 year	-	-	Patients engaged in electronic health were more likely to be screened for HCV than those not engaged in electronic health
Screening uptake by clinic setting	Odds ratio: 1.2 (CI 95% 1.11 - 1.3) Based on data from 40561 participants in 1 studies[3] Follow up 1 year	-	-	Patients seen within a residency teaching clinic were more likely to be screened for HCV than those seen in other clinics
Screening uptake by number of clinic visits	Odds ratio: 1.42 (CI 95% 1.34 - 1.51) Based on data from 40561 participants in 1 studies[4] Follow up 1 year	-	-	Patients with more than one clinic visit in the past year were more likely to be screened for HCV than those with no visit
Proportion unscreened (uninsured vs private insurance)	Relative risk: 1.67 (CI 95% 1.37 - 2.03) Based on data from 6906 participants in 1 studies[5]	-	-	Patients with no or unspecified insurance had higher risk of being unscreened than those with private insurance

Proportion unscreened (medicare vs private insurance)	Relative risk: 1.16 (CI 95% 1.03 - 1.31) Based on data from 6906 participants in 1 studies[6]	-	-	Patients insured by medicare had higher risk of being unscreened than those with private insurance
Proportion unscreened (medicare advantage vs private insurance)	Relative risk: 1.34 (CI 95% 1.2 - 1.49) Based on data from 6906 participants in 1 studies[7]	-	-	Patients insured by medicare advantage had higher risk of being unscreened than those with private insurance
Proportion unscreened (high vs low violent crime rate)	Relative risk: 0.88 (CI 95% 0.79 - 0.98) Based on data from 6906 participants in 1 studies[8]	-	-	Patients residing in census tracts with the lowest level of violent crime had higher risk of being unscreened than those residing in high crime areas
Proportion unscreened (low vs high education)	Relative risk: 0.86 (CI 95% 0.77 - 0.97) Based on data from 6906 participants in 1 studies[9]	-	-	Patients residing in census tracts with the highest education levels had higher risk of being unscreened compared with the lowest education tracts
Proportion unscreened (low vs high household income)	Relative risk: 0.9 (CI 95% 0.81 - 0.99) Based on data from 6906 participants in 1 studies[10]	-	-	Patients residing in census tracts with the highest median household incomes had higher risk of being unscreened than lower income tracts

Proportion unscreened (residential segregation vs no segregation)	Relative risk: 0.75 (CI 95% 0.65 - 0.87) Based on data from 6906 participants in 1 studies[11]	-	-	Patients residing in census tracts with high racal/ethnic residential segregation had higher risk of being unscreened

Footnotes

1. Systematic review [91].
2. Systematic review [91].
3. Systematic review [91].
4. Systematic review [91].
5. Systematic review [92].
6. Systematic review [92].
7. Systematic review [92].
8. Systematic review [92].
9. Systematic review [92].
10. Systematic review [92].
11. Systematic review [92].

References

[91] Bourgi K, Brar I, Baker-Genaw K : Health Disparities in Hepatitis C Screening and Linkage to Care at an Integrated Health System in Southeast Michigan. PloS one 2016;11(8):e0161241
[92] Lee DH, Chou EY, Moore K, Melly S, Zhao Y, Chen H, Buehler JW : Patient characteristics and neighborhood attributes associated with hepatitis C screening and positivity in Philadelphia. Preventive medicine reports 2022;30 102011

7.7 – Equity outcomes: linkage to HCV treatment by sociodemographic factors

PICO

Population: Adults with HCV infection
Intervention: Equity outcomes - Linkage to HCV treatment by sociodemographic factors
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - HCV screening by sociodemographic factors		
Linkage to treatment (men vs women)	Odds ratio: 2.36 (CI 95% 0.9 - 6.25) Based on data from 100 participants in 1 studies[1] Follow up 1 year				Women were more likely to be be treated for HCV than men

Linkage to treatment by electronic health engagement	Odds ratio: 3.89 (CI 95% 1.31 - 11.54) Based on data from 100 participants in 1 studies[2] Follow up 1 year			Patients engaged in electronic health were more likely to be treated than those not engaged in electronic health
Linkage to treatment by medicaid insurance	Odds ratio: 0.16 (CI 95% 0.16 - 0.97) Based on data from 100 participants in 1 studies[3] Follow up 1 year			Medicaid beneficiaries were significantly less likely to be treated than patients with different insurance coverage

Footnotes

12. Systematic review [91].
13. Systematic review [91].
14. Systematic review [91].
15. Systematic review [91].
16. Systematic review [92].
17. Systematic review [92].
18. Systematic review [92].
19. Systematic review [92].
20. Systematic review [92].
21. Systematic review [92].
22. Systematic review [92].

References

[91] Bourgi K, Brar I, Baker-Genaw K : Health Disparities in Hepatitis C Screening and Linkage to Care at an Integrated Health System in Southeast Michigan. PloS one 2016;11(8):e0161241
[92] Lee DH, Chou EY, Moore K, Melly S, Zhao Y, Chen H, Buehler JW : Patient characteristics and neighborhood attributes associated with hepatitis C screening and positivity in Philadelphia. Preventive medicine reports 2022;30 102011

7.8 – Equity outcomes: HCV positivity by sociodemographic factors

PICO

Population: Adults screened for HCV
Intervention: Equity outcomes - HCV positivity by sociodemographic factors
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - HCV positivity by sociodemographic factors		

HCV positivity (old vs young age)	Relative risk: 0.57 (CI 95% 0.4 - 0.8) Based on data from 4531 participants in 1 studies[1]	-	-	HCV positivity was higher for older compared with younger patients
HCV positivity (men vs women)	Relative risk: 1.92 (CI 95% 1.59 - 2.32) Based on data from 4531 participants in 1 studies	-	-	HCV positivity was higher for male compared with female patients
HCV positivity (Black vs White race)	Relative risk: 0.95 (CI 95% 0.71 - 1.29) Based on data from 4531 participants in 1 studies[2]	-	-	HCV positivity was higher for Black compared with White patients
HCV positivity (medicaid vs private insurance)	Relative risk: 2.8 (CI 95% 2.05 - 3.82) Based on data from 4531 participants in 1 studies[3]	-	-	HCV positivity was higher for those insured by Medicaid than those with private insurance
HCV positivity (medicare vs private insurance)	Relative risk: 1.96 (CI 95% 1.37 - 2.82) Based on data from 4531 participants in 1 studies[4]	-	-	HCV positivity was higher for those insured by Medicare than those with private insurance
HCV positivity (medicare advantage vs private insurance)	Relative risk: 1.78 (CI 95% 1.21 - 2.6) Based on data from 4531 participants in 1 studies[5]	-	-	HCV positivity was higher for those insured by Medicare advantage than for those with private insurance

HCV positivity (high vs low violent crime rate)	Relative risk: 1.58 (CI 95% 1.1 - 2.27) Based on data from 4531 participants in 1 studies[6]	-	-	HCV positivity was highest among those living in census tracts with the highest level of violent crime than those with the lowest crime
HCV positivity (low vs high education)	Relative risk: 1.39 (CI 95% 1.0 - 1.94) Based on data from 4531 participants in 1 studies[7]	-	-	HCV positivity was higher among those living in census tracts with the lowest level of education than those with higher education

Footnotes

1. Systematic review [92].
2. Systematic review [92].
3. Systematic review [92].
4. Systematic review [92].
5. Systematic review [92].
6. Systematic review [92].
7. Systematic review [92].

References

[92] Lee DH, Chou EY, Moore K, Melly S, Zhao Y, Chen H, Buehler JW : Patient characteristics and neighborhood attributes associated with hepatitis C screening and positivity in Philadelphia. Preventive medicine reports 2022;30 102011

8. Diabetes Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Although diabetes screening has not been demonstrated to reduce mortality, there is indirect evidence that diabetes screening improves health outcomes. In terms of treatment, intensive glucose control with sulfonylureas or insulin decreases the risk for diabetes-related mortality for patients recently-diagnosed type 2 diabetes and intensive glucose control with metformin decreases the risk for diabetes-related mortality for overweight patients. For people with pre-diabetes, lifestyle interventions are associated with reduced diabetes risk.	

Certainty of the Evidence	Moderate

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Men are significantly less likely to participate in diabetes screening compared with women. Racialized individuals are less likely to obtain a lipid test or an HbA1c test than their White counterparts. Compared with white patients, Black patients with diabetes have lower odds for controlled HbA1c and blood pressure, Hispanic patients have lower odds for controlled HbA1c, and Asian patients have lower odds for controlled low-density lipoprotein. Prioritized screening is a viable option to enhance screening participation and access to treatment among disadvantaged groups who are at increased risk.	

8.1 – Diabetes screening vs. no screening

PICO
Population: Asymptomatic adults aged 40-69
Intervention: Diabetes screening
Comparator: No screening

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No screening	Diabetes screening		
All-cause mortality	Hazard ratio: 1.06 (CI 95% 0.9 - 1.25) Based on data from 15874 participants in 1 studies[1]	-		Low	The findings from the first phase of the study indicate that screening compared to no screening for type 2 diabetes did not show a clear difference in all-cause mortality.

Diabetes-related mortality	Hazard ratio: 1.26 (CI 95% 0.75 - 2.12) Based on data from 15874 participants in 1 studies[2]	-	Low	Screening compared to no screening for type 2 diabetes mellitus showed no clear difference for diabetes-related mortality (based on whether diabetes was reported as a cause of death on the death certificate).
All-cause mortality or type-specific mortality	Based on data from 25120 participants in 2 studies[3] Follow up 10 years	-	Low	Neither trial found a reduction in all-cause or type-specific mortality for screening compared with no screening over about 10 years of follow-up.

Footnotes

1. Systematic review [56].Supporting references [59].
2. Systematic review [56].Supporting references [59].
3. Systematic review [56] Supporting references [56].

References

[56] Jonas DE, Crotty K, Yun JDY, Middleton JC, Feltner C, Taylor-Phillips S, Barclay C, Dotson A, Baker C, Balio CP, Voisin CE, Harris RP : Screening for Prediabetes and Type 2 Diabetes: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;326(8):744-760

[59] Peer N, Balakrishna Y, Durao S : Screening for type 2 diabetes mellitus. The Cochrane database of systematic reviews 2020;5 CD005266

PICO

Population: Asymptomatic adults aged 40-69 at high risk of diabetes
Intervention: Diabetes screening
Comparator: No screening

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No screening	Diabetes screening		

Harms of screening	Based on data from 9328 participants in 3 studies[1]	-	Low	The results of the 3 trials did not find clinically important differences between the screening and control groups in measures of anxiety, depression, worry, or self-reported health, but the results suggest possible short-term increases in anxiety (at 6 weeks) among persons screened and diagnosed with diabetes compared with those screened and not diagnosed with diabetes.

Footnotes

1. Systematic review [56] .

References

[56] Jonas DE, Crotty K, Yun JDY, Middleton JC, Feltner C, Taylor-Phillips S, Barclay C, Dotson A, Baker C, Balio CP, Voisin CE, Harris RP : Screening for Prediabetes and Type 2 Diabetes: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;326(8):744-760

8.2 – Intense glucose control with sulfonylureas or insulin vs. no intervention

PICO

Population: People with recently diagnosed type 2 diabetes
Intervention: Intense glucose control with sulfonylureas or insulin
Comparator: No intervention, usual care, or interventions with other treatment targets

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No intervention	Intense glucose control with sulfonylureas or insulin		

All-cause mortality	Relative risk: 0.87 (CI 95% 0.79 - 0.96) Based on data from 5138 participants in 5 studies[1] Follow up 10 years post-trial (20 years total)	-	Moderate	Intensive glucose control with sulfonylureas or insulin decreased the risk for all-cause mortality.
Diabetes-related mortality	Relative risk: 0.83 (CI 95% 0.73 - 0.96) Based on data from 5138 participants in 5 studies[2] Follow up 10 years post-trial (20 years total)	-	Moderate	Intensive glucose control with sulfonylureas or insulin decreased the risk for diabetes-related mortality.
Myocardial infarction	Relative risk: 0.85 (CI 95% 0.74 - 0.97) Based on data from 5138 participants in 5 studies[3] Follow up 10 years post-trial (20 years total)	-	Moderate	Intensive glucose control with sulfonylureas or insulin decreased the risk for myocardial infarction.

Footnotes
1. Systematic review [56].
2. Systematic review [56].
3. Systematic review [56].

References
[56] Jonas DE, Crotty K, Yun JDY, Middleton JC, Feltner C, Taylor-Phillips S, Barclay C, Dotson A, Baker C, Balio CP, Voisin CE, Harris RP : Screening for Prediabetes and Type 2 Diabetes: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;326(8):744-760

8.3 – Intense glucose control with metformin vs. no intervention

PICO
Population: Overweight people with diabetes
Intervention: Intensive glucose control with metformin
Comparator: Usual care

Summary of findings table

Outcome		Absolute effect estimates		

	Study results and measurements	No intervention	Intensive glucose control with metformin	Certainty of the Evidence	Plain language summary
All-cause mortality	Relative risk: 0.64 (CI 95% 0.45 - 0.91) Based on data from 5138 participants in 5 studies[1] Follow up 10 years	-		Moderate	For overweight people, intensive glucose control with metformin decreased the risk for all-cause mortality.
Diabetes-related mortality	Relative risk: 0.58 (CI 95% 0.37 - 0.91) Based on data from 5138 participants in 5 studies[2] Follow up 10 years	-		Moderate	For overweight people, intensive glucose control with metformin decreased the risk for diabetes-related mortality.
Myocardial infarction	Relative risk: 0.61 (CI 95% 0.41 - 0.89) Based on data from 5138 participants in 5 studies[3] Follow up 10 years	-		Moderate	For overweight people, intensive glucose control with metformin decreased the risk for myocardial infarction.

Footnotes

4. Systematic review [56].
5. Systematic review [56].
6. Systematic review [56].

References

[56] Jonas DE, Crotty K, Yun JDY, Middleton JC, Feltner C, Taylor-Phillips S, Barclay C, Dotson A, Baker C, Balio CP, Voisin CE, Harris RP : Screening for Prediabetes and Type 2 Diabetes: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;326(8):744-760

8.4 – Lifestyle interventions vs. no intervention

PICO

Population: People with pre-diabetes or without diabetes
Intervention: Lifestyle interventions
Comparator: Control

Summary of findings table

Outcome		Absolute effect estimates		

	Study results and measurements	No intervention	Intensive glucose control with metformin	Certainty of the Evidence	Plain language summary
Diabetes incidence	Relative risk: 0.81 (CI 95% 0.73 - 0.89) Based on data from 12195 participants in 23 studies[1] Follow up >2 years	-		High	Lifestyle interventions were associated with a reduction in diabetes (pooled RR reported).

Footnotes
7. Systematic review [56].

References
[56] Jonas DE, Crotty K, Yun JDY, Middleton JC, Feltner C, Taylor-Phillips S, Barclay C, Dotson A, Baker C, Balio CP, Voisin CE, Harris RP : Screening for Prediabetes and Type 2 Diabetes: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;326(8):744-760

8.5 – Equity outcomes: diabetes screening by sociodemographic characteristics

PICO
Population: Adults without a known history of diabetes or pre-diabetes
Intervention: Equity outcomes - Diabetes screening by sociodemographic characteristics
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - Diabetes screening by sociodemographics		
Screening participation (low SES vs high SES)	[1]	Individuals of lower socioeconomic status were less likely to participate in diabetes screening compared with individuals of higher socioeconomic status.		Low	Individuals of lower socioeconomic status were less likely to participate in diabetes screening compared with individuals of higher socioeconomic status.

Screening participation (men vs women)	[2]	Men were significantly less likely to participate in screening compared with women (36.1%–53.4% vs 46.6%–63.9% for diabetes screening; 41.6%–51.2% vs 48.8%–58.4% for lipid screening).	Low	Men were less likely to participate in diabetes and lipid screening compared with women.

Footnotes
1. Systematic review [57]
2. Systematic review [57]

References
[57] Ding H, Huang J, Deng Y, Tin SPP, Wong MC-S, Yeoh E-K : Characteristics of participants who take up screening tests for diabetes and lipid disorders: a systematic review. BMJ open 2022;12(4):e055764

8.6 – Equity outcomes: diabetes quality measures by race/ethnicity

PICO
Population: People with type 2 diabetes
Intervention: Equity Outcomes - Diabetes quality measures by race/ethnicity
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity Outcomes - Diabetes quality measures by race/ethnicity		
Controlled HbA1c- Black compared to white	Odds ratio: 0.67 (CI 95% 0.55 - 0.83) Based on data from participants in 15 studies	-		-	Black people with diabetes had lower odds for controlled HbA1c compared to white people.
Controlled HbA1c- Hispanic compared to white	Odds ratio: 0.68 (CI 95% 0.61 - 0.77) Based on data from participants in 16 studies	-		-	Hispanic people with diabetes had lower odds for controlled HbA1c compared to white people.
Blood pressure control-Black compared to white	Odds ratio: 0.68 (CI 95% 0.58 - 0.8) Based on data from participants in 15 studies	-		-	Black people with diabetes had lower odds for controlled blood pressure compared to white people.

HbA1c Control-Asian compared to white	Relative risk (CI 95% -) Based on data from participants in 4 studies	-	-	Asian people exhibited higher control or receipt of care (OR range: 1.22-1.52, all P < .05) for HbA1c control and HbA1c testing than white people

Footnotes
1. Systematic review [58].
2. Systematic review [58].
3. Systematic review [58].
4. Systematic review [58].

References
[58] Lee W, Lloyd JT, Giuriceo K, Day T, Shrank W, Rajkumar R : Systematic review and meta-analysis of patient race/ethnicity, socioeconomics, and quality for adult type 2 diabetes. Health services research 2020;55(5):741-772

8.7 – Equity outcomes: diabetes quality measures by education

PICO
Population: People with type 2 diabetes
Intervention: Equity outcomes - Diabetes quality measures by education
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity Outcomes - Diabetes quality measures in race/ethnicity		
HbA1c control-education	Odds ratio: 1.24 (CI 95% 1.13 - 1.36) Based on data from participants in 13 studies	-		-	Meta-analyses of 13 studies examining the relationship between education level and diabetes quality found that having a high school education or more was associated with higher HbA1c control.

Receipt of dilated eye examinations-education	Odds ratio: 1.28 (CI 95% 1.17 - 1.39) Based on data from participants in 13 studies	-	-	Meta-analyses of 13 studies examining the relationship between education level and diabetes quality found that having a high school education or more was associated with receipt of dilated eye examinations.

Footnotes
1. Systematic review [58].
2. Systematic review [58].

References
[58] Lee W, Lloyd JT, Giuriceo K, Day T, Shrank W, Rajkumar R : Systematic review and meta-analysis of patient race/ethnicity, socioeconomics, and quality for adult type 2 diabetes. Health services research 2020;55(5):741-772

8.8 – Equity outcomes: diabetes quality measures by education

PICO
Population: People with type 2 diabetes
Intervention: Equity outcomes - Diabetes quality measures by income Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity Outcomes - Diabetes quality measures in race/ethnicity		
Diabetes control or receipt of process care	-	-		-	Among the three studies that could be combined, meta-analyses indicated inconsistent associations between higher income and improved control in intermediate outcomes or

				receipt of process care.

Footnotes

1. Systematic review [58]

References

[58] Lee W, Lloyd JT, Giuriceo K, Day T, Shrank W, Rajkumar R : Systematic review and meta-analysis of patient race/ethnicity, socioeconomics, and quality for adult type 2 diabetes. Health services research 2020;55(5):741-772

9. Tuberculosis Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Both the tuberculin skin test and interferon-gamma release assays are moderately sensitive and highly specific.	

Certainty of the Evidence	Moderate

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Tuberculosis mortality and morbidity is higher among several groups experiencing disadvantages including those who have experienced homelessness, people who use substances, people who have been incarcerated, and people who have been sex workers. Men report significantly lower screening participation compared with women, despite higher disease prevalence. There should be no barriers to tuberculosis screening and IGRA testing should be available without charge where appropriate.	

9.1 – Tuberculin skin test vs. validated reference standard

PICO
Population: Patients with bacteriologically confirmed active TB who have not yet received treatment or who had received no more than a few weeks of treatment
Intervention: Tuberculin skin test
Comparator: Validated reference standard

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity Outcomes - Diabetes quality measures in race/ethnicity		
Sensitivity (5-mm threshold)	Sensitivity: 0.79 (CI 95% 0.69 - 0.89) Based on data from 803 participants in 8 studies[1]	-		Very low [2]	Pooled sensitivity of the tuberculin skin test with a 5-mm induration threshold was moderate
Sensitivity (10-mm threshold)	Sensitivity: 0.79 (CI 95% 0.71 - 0.87) Based on data from 988 participants in 11 studies[3]	-		Very low [4]	Pooled sensitivity of the tuberculin skin test with a 10-mm induration threshold was moderate

Sensitivity (15-mm threshold)	Sensitivity: 0.52 (CI 95% 0.35 - 0.68) Based on data from 740 participants in 7 studies[5]	-	Very low [6]	Pooled sensitivity of the tuberculin skin test with a 15-mm induration threshold was moderate
Specificity (10-mm threshold)	Specificity: 0.97 (CI 95% 0.96 - 0.99) Based on data from 9651 participants in 9 studies[8]	-	-	Pooled specificity of the tuberculin skin test with a 10-mm induration threshold was high
Specificity (15-mm threshold)	Specificity: 0.99 (CI 95% 0.98 - 0.99) Based on data from 9640 participants in 12 studies[9]	-	-	Pooled specificity of the tuberculin skin test with a 15-mm induration threshold was high
Specificity (5-mm threshold)	Based on data from 5196 participants in 4 studies[10]	Specificity for the tuberculin skin test with a 5-mm threshold ranged from 0.30 (95% CI 0.19 - 0.44) to 0.97 (95% CI 0.95-0.98).	-	-

Footnotes

1. Systematic review [61] .
3. Inconsistency: serious. The magnitude of statistical heterogeneity was high, with I^2: 94.6%. Estimates from a maximum-likelihood random-effects model yielded slightly different estimate (0.84 [95% CI, 0.68 to 0.92]).;
4. Systematic review [61] .
5. Inconsistency: serious. The magnitude of statistical heterogeneity was high, with I^2: 91.4%.;
6. Systematic review [61] .
7. Inconsistency: serious. The magnitude of statistical heterogeneity was high, with I^2: 95.5%.;
8. J Systematic review [61] .
9. Systematic review [61] .
10. Systematic review [61]

References

[61] Kahwati LC, Feltner C, Halpern M, Woodell CL, Boland E, Amick HR, Weber RP, Jonas DE : Primary Care Screening and Treatment for Latent Tuberculosis Infection in Adults: Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2016;316(9):970-83

9.2 – Interferon-gamma release assay vs. validated reference standard

PICO

Population: Patients with bacteriologically confirmed active TB who have not yet received treatment or who had received no more than a few weeks of treatment

Intervention: Interferon-gamma release assay

Comparator: Validated reference standard

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Validated reference standard	Interferon-gamma release assay		
Sensitivity (T-SPOT.TB)	Sensitivity: 0.90 (CI 95% 0.87 - 0.93) Based on data from 984 participants in 16 studies[1]	-		Very low [2]	Pooled sensitivity of the T-SPOT.TB interferon-release gamma assay was moderate
Sensitivity (QuantiFERON TB Gold)	Sensitivity: 0.77 (CI 95% 0.74 - 0.81) Based on data from 1073 participants in 17 studies[3]	-		Very low [4]	Pooled sensitivity of the QuantiFERON TB Gold interferon-release gamma assay was moderate
Sensitivity (QuantiFERON TB Gold In-Tube)	Sensitivity: 0.80 (CI 95% 0.77 - 0.84) Based on data from 2321 participants in 24 studies[5]	-		Very low [6]	Pooled sensitivity QuantiFERON TB Gold In-Tube interferon-release gamma assay was moderate
Specificity (T-SPOT.TB)	Specificity: 0.95 (CI 95% 0.92 - 0.98) Based on data from 1810 participants in 5 studies	-		-	Pooled specificity of the T-SPOT.TB interferon-release gamma assay was high
Specificity (QuantiFERON TB Gold)	Specificity: 0.98 (CI 95% 0.9 - 1.0) Based on data from 699 participants in 4 studies	-		-	Pooled specificity of the QuantiFERON TB Gold interferon-release gamma assay was high
Specificity (QuantiFERON TB Gold In-Tube)	Specificity: 0.97 (CI 95% 0.94 - 0.99) Based on data from 2053 participants in 4 studies	-		-	Pooled specificity of the QuantiFERON TB Gold In-Tube interferon-release gamma assay was high

Footnotes

1. Systematic review [61].
2. Systematic review [61].
3. Systematic review [61].

References

[61] Kahwati LC, Feltner C, Halpern M, Woodell CL, Boland E, Amick HR, Weber RP, Jonas DE : Primary Care Screening and Treatment for Latent Tuberculosis Infection in Adults: Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2016;316(9):970-83

9.3 – Equity outcomes: tuberculosis screening by gender

PICO

Population: Adults aged ≥ 15 years in low- and middle-income countries
Intervention: Equity outcomes - Tuberculosis screening by gender
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No Comparator	Equity outcomes - Tuberculosis screening by gender		
Prevalence of bacteriologically-positive TB (male vs female)[1]	Rate ratio: 2.21 (CI 95% 1.92 - 2.54) Based on data from 2200000 participants in 56 studies[2]	-		-	The ratio of bacteriologically-positive cases of TB was 2.2 times higher among men than women.
Screening participation (male vs female)	Rate ratio: 0.9 (CI 95% 0.86 - 0.93) Based on data from 1299830 participants in 29 studies[3]	-		-	-Female participation equalled or exceeded male participation in all of the surveys for which participation was reported by sex.
Prevalence of smear-positive TB (male vs female)[4]	Rate ratio: 2.51 (CI 95% 2.07 - 3.04) Based on data from 1700000 participants in 40 studies[5]	-		-	The ratio of smear-positive cases of TB was 2.5 times higher among men than women.

Prevalence-to-notification ratio (male vs female)[6]	Rate ratio: 1.55 (CI 95% 1.25 - 1.91) Based on data from participants in 34 studies[7]	-	-	The ratio of prevalent-to-notified cases of TB was 1.5 times higher among men than women, suggesting that men are less likely than women to achieve a timely diagnosis.

Footnotes

1. The number of individuals with bacteriologically-positive TB divided by the number of study participants
2. Systematic review [73].
2. Systematic review [73].
3. The number of individuals with smear-positive TB divided by the number of study participants
4. Systematic review [73].
5. The number of prevalent cases per notified case of smear-positive TB (the ratio of smear-positive TB prevalence per 100,000 individuals to smear-positive TB case notifications per 100,000 individuals; an indication of how long patients take to be diagnosed.)
6. Systematic review [73] . Baseline/comparator Control arm of reference used for intervention .

References

[73] Horton KC, MacPherson P, Houben RMGJ, White RG, Corbett EL : Sex Differences in Tuberculosis Burden and Notifications in Low- and Middle-Income Countries: A Systematic Review and Meta-analysis. PLoS medicine 2016;13(9):e1002119

10. Tobacco Use Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Interventions for tobacco cessation in adults including pharmacotherapy, behavioral interventions such as advice from clinicians, and combined pharmacotherapy and behavioral interventions are associated with increased smoking quit rates.	

Certainty of the Evidence	Moderate

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Racialized individuals and socioeconomically disadvantaged groups are less likely to use smoking cessation services and report lower pharmacotherapy efficacy for smoking cessation. Smoking cessation programs should take into consideration specific underserved populations and design more targeted interventions that reach these groups.	

10.1 – Behavioural interventions for smoking cessation vs. no intervention

PICO
Population: Male smokers aged 40 to 59 at high risk of cardiorespiratory disease
Intervention: Behavioural intervention for smoking cessation
Comparator: No intervention

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No intervention	Behavioural intervention for smoking cessation		
All-cause mortality	Based on data from 1445 participants in 1 studies[1] Follow up 20 years	Total mortality was 7% lower in the intervention group compared with the normal care group at 20 years follow-up		Low	Behavioural tobacco cessation interventions were associated with improvements in all-cause mortality at 20 years
Coronary disease mortality	Based on data from 1445 participants in 1 studies[2] Follow up 20 years	Fatal coronary heart disease was 13% lower in the intervention group compared with the normal care group at 20 years follow-up		Low	Behavioural tobacco cessation interventions were associated with improvements in

				coronary disease mortality at 20 years
Lung cancer incidence and mortality	Based on data from 1445 participants in 1 studies[3] Follow up 20 years	Lung cancer (deaths+registrations) was 11% lower in the intervention group compared with the normal care group at 20 years follow-up	Low	Behavioural tobacco cessation interventions were associated with improvements in lung cancer incidence and mortality at 20 years

Footnotes

1. Systematic review [104]
2. Systematic review [104]
3. Systematic review [104]

References

[104] Patnode CD, Henderson JT, Coppola EL, Melnikow J, Durbin S, Thomas RG : Interventions for Tobacco Cessation in Adults, Including Pregnant Persons: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(3):280-298

PICO

Population: Adults who smoke
Intervention: Behavioral interventions for smoking cessation
Comparator: No intervention

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No intervention	Behavioral interventions for smoking cessation		
Smoking quit rate (physician advice)	Relative risk: 1.76 (CI 95% 1.58 - 1.96) Based on data from 22239 participants in 28 studies[1] Follow up 6 months or more	-		Moderate	Smoking cessation advice from a physician significantly increased the chances of quitting smoking compared with usual care

Smoking quit rate (nurse advice)	Relative risk: 1.29 (CI 95% 1.21 - 1.38) Based on data from 20881 participants in 44 studies[2] Follow up 6 months or more	-	Moderate	Smoking cessation advice from a nurse significantly increased the chances of quitting smoking compared with usual care
Smoking quit rate (individual counselling)	Relative risk: 1.48 (CI 95% 1.34 - 1.64) Based on data from 13762 participants in 33 studies[3] Follow up 6 months or more	-	High	Individual counselling with a cessation specialist significantly increased the chances of quitting smoking compared with minimal contact control
Smoking quit rate (group-based intervention)	Relative risk: 1.88 (CI 95% 1.52 - 2.33) Based on data from 4395 participants in 13 studies[4] Follow up 6 months or more	-	Moderate	Group-based interventions for smoking cessation significantly increased the chances of quitting smoking compared with self-help programs
Smoking quit rate (telephone counselling by quitline callers)	Relative risk: 1.38 (CI 95% 1.19 - 1.61) Based on data from 32484 participants in 14 studies[5] Follow up 6 months or more	-	Moderate	Telephone counselling by quitline callers significantly increased the chances of quitting smoking compared with no counselling
Smoking quit rate (telephone counselling)	Relative risk: 1.25 (CI 95% 1.15 - 1.35) Based on data from 41233 participants in 65 studies[6] Follow up 6 months or more	-	Moderate	Telephone counselling not initiated by quitline callers significantly increased the chances of quitting smoking compared with no counselling

Smoking quit rate (mobile phone-based interventions)	Relative risk: 1.54 (CI 95% 1.19 - 2.0) Based on data from 14133 participants in 13 studies[7] Follow up 6 months or more	-	Moderate	Automated text messaging interventions significantly increased the chances of quitting smoking compared with minimal smoking cessation support
Smoking quit rate (internet-based interventions)	Relative risk: 1.15 (CI 95% 1.01 - 1.3) Based on data from 6786 participants in 8 studies[8] Follow up 6 months or more	-	Low	Interactive and tailored internet-based interventions significantly increased the chances of quitting smoking compared with self-help or usual care
Smoking quit rate (incentives)	Relative risk: 1.49 (CI 95% 1.28 - 1.73) Based on data from 20060 participants in 30 studies[9] Follow up 6 months or more	-	High	Use of incentives significantly increased the chances of quitting smoking compared with non-incentive-based interventions
Adverse events	(CI 95% -)[10]	-	Moderate	There was no evidence that behavioural tobacco cessation interventions are associated with serious adverse events

Footnotes

1. Systematic review [104] .
2. Systematic review [104] .
3. Systematic review [104] .
4. Systematic review [104] .
5. Systematic review [104] .
6. Systematic review [104] .
7. Systematic review [104] .
8. Systematic review [104] .
9. Systematic review [104] .
10. Systematic review [104] .

References

[104] Patnode CD, Henderson JT, Coppola EL, Melnikow J, Durbin S, Thomas RG : Interventions for Tobacco Cessation in Adults, Including Pregnant Persons: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(3):280-298

PICO

Population: Pregnant women who smoke
Intervention: Behavioral interventions for smoking cessation
Comparator: No intervention

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No intervention	Behavioral interventions for smoking cessation		
Low birth weight	Relative risk: 0.83 (CI 95% 0.72 - 0.94) Based on data from 9402 participants in 18 studies[1]	-		High	Behavioural interventions for smoking cessation were associated with a 17% risk reduction for delivery of a low-birth-weight infant compared with usual care
Smoking quit rate	Relative risk: 1.35 (CI 95% 1.23 - 1.48) Based on data from 26637 participants in 97 studies[2]	-		Moderate	Behavioural interventions were associated with a significant increase in smoking cessation in late pregnancy compared with usual care or a minimal intervention
Adverse events	(CI 95% -) Based on data from 5831 participants in 13 studies[3]	-		Moderate	There did not appear to be any adverse effects from the behavioural interventions

Psychological well-being	(CI 95% -) Based on data from 5831 participants in 13 studies[4]	-	Moderate	Five of the 13 trials evaluating psychological effects reported an improvement in women's psychological well-being, and none reported negative effects
Mean birth weight	Unit: grams Scale: - High better Based on data from 11338 participants in 26 studies[5]	Difference: **MD 55.60 higher** (CI 95% 29.82 higher - 81.38 higher)	High	Behavioural interventions for smoking cessation were associated with a higher mean birth weight compared with usual care

Footnotes

1. Systematic review [104] .
2. Systematic review [104] .
3. Systematic review [104] .
4. Systematic review [104] .
5. Systematic review [104] .

References

[104] Patnode CD, Henderson JT, Coppola EL, Melnikow J, Durbin S, Thomas RG : Interventions for Tobacco Cessation in Adults, Including Pregnant Persons: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(3):280-298

10.2 – Pharmacotherapy for smoking cessation vs. placebo or no medication

PICO

Population: Adults who smoke
Intervention: Pharmacotherapy for smoking cessation
Comparator: Placebo or no medication

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Placebo or no medication	Pharmacotherapy for smoking cessation		
Smoking quit rate (nicotine replacement therapy)	Relative risk: 1.55 (CI 95% 1.49 - 1.61) Based on data from 64640 participants in 133 studies[1]	-		High	Nicotine replacement therapy significantly increased the chances of quitting smoking compared with

	Follow up 6 months or more			placebo or no medication
Smoking quit rate (bupropion)	Relative risk: 1.64 (CI 95% 1.52 - 1.77) Based on data from 17866 participants in 46 studies[2] Follow up 6 months or more	-	High	Bupropion significantly increased the chances of quitting smoking compared with placebo or no medication
Smoking quit rate (varenicline)	Relative risk: 2.24 (CI 95% 2.06 - 2.43) Based on data from 12625 participants in 27 studies[3] Follow up 6 months or more	-	High	Varenicline significantly increased the chances of quitting smoking compared with placebo or no medication
Adverse events	[4]	-	Moderate	There was no association between the use of nicotine replacement therapy, bupropion, or varenicline and serious adverse events, including major cardiovascular adverse events or serious neuropsychiatric events, as compared with placebo or non-drug control groups

Footnotes

1. Systematic review [104] .
2. Systematic review [104]
3. Systematic review [104]
4. Systematic review [104]

References

[104] Patnode CD, Henderson JT, Coppola EL, Melnikow J, Durbin S, Thomas RG : Interventions for Tobacco Cessation in Adults, Including Pregnant Persons: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(3):280-298

PICO

Population: Pregnant women who smoke
Intervention: Pharmacotherapy for smoking cessation
Comparator: Placebo or no medication

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Placebo or no medication	Pharmacotherapy for smoking cessation		
Preterm birth	Relative risk: 0.39 (CI 95% 0.17 - 0.91) Based on data from 2285 participants in 7 studies[1] Follow up 2 years	-		Insufficient	The incidence of preterm birth was lower among women assigned to receive nicotine replacement therapy compared with the placebo group
Survival with no impairment	Odds ratio: 1.4 (CI 95% 1.05 - 1.86) Based on data from 2285 participants in 7 studies[2] Follow up 2 years	-		Insufficient	The survival with no impairment rate at 2 years was higher among children of women assigned to receive nicotine replacement therapy compared with the placebo group
Perinatal harms	(CI 95% -) Based on data from 2285 participants in 7 studies[3] Follow up 2 years	-		Low	There was no evidence of perinatal harms related to nicotine replacement therapy use among pregnant women

Adverse events	(CI 95% -) Based on data from 2285 participants in 7 studies Follow up 2 years	-	Low	There was no differences in number of stillbirths, birth outcomes, or any congenital anomaly for infants born to mothers with exposure to nicotine replacement therapy, bupropion, or varenicline compared with those unexposed to medication

Footnotes

1. Systematic review [104] .
2. Systematic review [104] .
3. Systematic review [104] .

References

[104] Patnode CD, Henderson JT, Coppola EL, Melnikow J, Durbin S, Thomas RG : Interventions for Tobacco Cessation in Adults, Including Pregnant Persons: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(3):280-298

10.3 – Combined pharmacotherapy and behavioural interventions for smoking cessation vs. no intervention

PICO

Population: Adults who smoke
Intervention: Combined pharmacotherapy and behavioural interventions for smoking cessation
Comparator: No intervention

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No intervention	Combined pharmacotherapy and behavioural interventions		
Smoking quit rate	Relative risk: 1.83 (CI 95% 1.68 - 1.98) Based on data from 25375 participants in 53 studies[1]	-		High	Combined pharmacotherapy and behavioUral interventions increased smoking quit rates by 68% to

	Follow up 6 month or more			98%, compared with the no treatment group.

Footnotes
1. Systematic review [104] .

References
[104] Patnode CD, Henderson JT, Coppola EL, Melnikow J, Durbin S, Thomas RG : Interventions for Tobacco Cessation in Adults, Including Pregnant Persons: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;325(3):280-298

10.4 – Equity outcomes: socioeconomic disparities in smoking cessation

PICO
Population: Adults who smoke
Intervention: Equity outcomes - Socioeconomic disparities in smoking cessation
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - Socioeconomic disparities in smoking cessation		
Quit intentions (high vs low education)	Odds ratio: 1.36 (CI 95% 1.21 - 1.52) Based on data from 16458 participants in 1 studies[1]	-		-	Smokers with a university degree or higher were more likely to intend to quit than those with a high school degree or less
Quit attempts (high vs low education)	Odds ratio: 1.19 (CI 95% 1.06 - 1.34) Based on data from 9889 participants in 1 studies[2]	-		-	Smokers with a university degree or higher were more likely to make a quit attempt than those with a high school degree or less

Smoking abstinence (high vs low education)	Odds ratio: 1.3 (CI 95% 1.05 - 1.62) Based on data from 5289 participants in 1 studies[3]	-	-	Smokers with higher education were more likely to remain abstinent for at least 1 and 6 months than less educated smokers
Quit intentions (high vs low income)	Odds ratio: 1.26 (CI 95% 1.14 - 1.4) Based on data from 16458 participants in 1 studies[4]	-	-	Smokers with higher income were more likely to intend to quit than lower income smokers.
Smoking abstinence (high vs low income)	Odds ratio: 1.3 (CI 95% 1.09 - 1.55) Based on data from 5289 participants in 1 studies[5]	-	-	Smokers with higher income were more likely to be abstinent for at least 1 month compared with lower income smokers

Footnotes

1. Primary study [105] .
2. Primary study [105] .
3. Primary study [105] .
4. Primary study [105] .
5. Primary study [105] .

References

[105] Reid JL, Hammond D, Boudreau C, Fong GT, Siahpush M : Socioeconomic disparities in quit intentions, quit attempts, and smoking abstinence among smokers in four western countries: findings from the International Tobacco Control Four Country Survey. Nicotine & tobacco research : official journal of the Society for Research on Nicotine and Tobacco 2010;12 Suppl S20-33

10.5 – Equity outcomes: racial disparities in smoking cessation

PICO

Population: Adults who smoke 10 or more cigarettes per day
Intervention: Equity outcomes - Racial disparities in smoking cessation
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - Racial disparities in		

		smoking cessation		
Smoking quit rate overall (Black vs White race)	Odds ratio: 0.53 (CI 95% 0.41 - 0.69) Based on data from 4109 participants in 1 studies[1] Follow up 9 to 24 weeks	-	-	Black participants had reduced odds of abstinence compared with White participants, across all treatments
Smoking quit rate from varenicline (Black vs White race)	Odds ratio: 0.52 (CI 95% 0.33 - 0.82) Based on data from 1033 participants in 1 studies[2] Follow up 9 to 24 weeks	-	-	The smoking quit rate from varenicline treatment was lower for Black participants compared with White participants (10.3% vs 18.1%)
Smoking quit rate from bupropion (Black vs White race)	Odds ratio: 0.42 (CI 95% 0.24 - 0.74) Based on data from 1028 participants in 1 studies[3] Follow up 9 to 24 weeks	-	-	The smoking quit rate from bupropion treatment was lower for Black participants compared with White participants (5.8% vs 12.9%)
Smoking quit rate from NRT (Black vs White race)	Odds ratio: 0.67 (CI 95% 0.41 - 1.09) Based on data from 1024 participants in 1 studies[4] Follow up 9 to 24 weeks	-	-	The smoking quit rate from nicotine replacement therapy was lower for Black participants compared with White participants (7.9% vs 11.4%)
Smoking quit rate from placebo (Black vs White race)	Odds ratio: 0.52 (CI 95% 0.27 - 1.01) Based on data from 1024 participants in 1 studies[5] Follow up 9 to 24 weeks	-	-	The smoking quit rate from nicotine replacement therapy was lower for Black participants compared with White

				participants (4.2% vs 7.8%)

Footnotes

6. Primary study [106] .
7. Primary study [106] .
8. Primary study [106] .
9. Primary study [106] .
10. Primary study [106] .

References

[106] Nollen NL, Ahluwalia JS, Sanderson Cox L, Okuyemi K, Lawrence D, Samuels L, Benowitz NL : Assessment of Racial Differences in Pharmacotherapy Efficacy for Smoking Cessation: Secondary Analysis of the EAGLES Randomized Clinical Trial. JAMA network open 2021;4(1):e2032053

10.6 – Equity outcomes: sex differences in use of smoking cessation services

PICO

Population: Adults who smoke
Intervention: Equity outcomes - Sex differences in use of smoking cessation services
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - Sex differences in use of smoking cessation services		
Nicotine patch use	Odds ratio: 1.39 (CI 95% 1.16 - 1.67) Based on data from 2774 participants in 1 studies[1]	-		-	Female participants were more likely to use nicotine patch compared with male participants (63% vs 58%)
Varenicline use	Odds ratio: 1.37 (CI 95% 1.13 - 1.66) Based on data from 2774 participants in 1 studies[2]	-		-	Female participants were more likely to use varenicline compared with male

				participants (29% vs 24%)
Smokers Helpline phone use	Odds ratio: 1.39 (CI 95% 1.07 - 1.79) Based on data from 2774 participants in 1 studies[3]	-	-	Female participants were more likely to use Smokers Helpline phone compared with male participants (14% vs 10%)
Smokers Helpline online use	Odds ratio: 1.43 (CI 95% 1.18 - 1.74) Based on data from 2774 participants in 1 studies[4]	-	-	Female participants were more likely to use Smokers Helpline online compared with male participants (27% vs 21%)
Self-help materials use	Odds ratio: 1.81 (CI 95% 1.46 - 2.26) Based on data from 2774 participants in 1 studies[5]	-	-	Female participants were more likely to use self-help materials compared with male participants (23% vs 16%)
Alternative treatment methods use	Odds ratio: 1.4 (CI 95% 1.14 - 1.73) Based on data from 2774 participants in 1 studies[6]	-	-	Female participants were more likely to use alternative methods compared with male participants (23% vs 19%)

Footnotes

11. Primary study [107] .
12. Primary study [107] .
13. Primary study [107] .
14. Primary study [107] .
15. Primary study [107] .

References

[107] Jayakumar N, Chaithon M, Zhang BO, Selby P, Schwartz R : Sex Differences in Use of Smoking Cessation Services and Resources: A Real-World Study. Tob Use Insights 2020;

113

11. Alcohol Use Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Brief screening instruments feasible for use in primary care are available and effective in identifying the full spectrum of unhealthy alcohol use in adults. Counseling interventions in those who screen positive are associated with reductions in unhealthy alcohol use and all-cause mortality.	

Certainty of the Evidence	Moderate

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Individuals residing in rural areas are less likely to receive an alcohol screening, be educated about alcohol use, or receive advice about alcohol consumption following a positive screen than urban residents. Rural residents also have lower odds of treatment initiation. Asian Americans are least likely to engage in alcohol screening compared to all other racial/ethnic subgroups. Women are less likely than men to utilize any alcohol service.	

11.1 – Behavioral counseling interventions for unhealthy alcohol use vs. minimal intervention or usual care

PICO

Population: Adolescents, adults, and pregnant/postpartum individuals
Intervention: Behavioral Counseling Interventions for unhealthy alcohol use/use disorder
Comparator: Minimal intervention or usual care

Summary of findings table

Outcome	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Minimal intervention or usual care	Behavioral interventions for unhealthy alcohol use/use disorder		
Exceeding recommended drinking limits	Odds ratio: 0.6 (CI 95% 0.53 - 0.67) Based on data from 9760 participants in 15 studies[1] Follow up 6 to 12 months	-		Moderate	Odds of exceeding recommended drinking limits were lower in the intervention groups compared with the control groups

Heavy drinking episodes	Odds ratio: 0.67 (CI 95% 0.58 - 0.77) Based on data from 8108 participants in 12 studies[2] Follow up 6 to 12 months	-	Moderate	Odds of reporting an episode of heavy drinking were lower in the intervention groups compared with the control groups
Abstinence from alcohol during pregnancy	Odds ratio: 2.26 (CI 95% 1.43 - 3.56) Based on data from 796 participants in 5 studies[3]	-	Moderate	Counselling interventions were associated with a reduction in alcohol-related consequences compared with no intervention
All-cause mortality	Odds ratio: 0.64 (CI 95% 0.34 - 1.19) Based on data from 4533 participants in 9 studies[4]	-	Low	Counselling interventions were associated with a reduction in all-cause mortality compared with no intervention
Serious adverse events	(CI 95% -) Based on data from 3650 participants in 6 studies[5] Follow up 6 to 12 months	-	Low	No harms or serious adverse events were reported in either intervention or control groups
Drinks per week	Measured by: Scale: - Lower better Based on data from 15974 participants in 32 studies Follow up 6 to 12 months	Difference: **MD 1.6 lower** (CI 95% 2.2 lower - 1 lower)	Moderate	Individuals in intervention groups reduced their drinking by 1.6 drinks per week more than those in control groups
Alcohol-related consequences	Measured by: Scale: - Lower better Based on data from 9894 participants in 18 studies[6]	Difference: **SMD 0.06 lower** (CI 95% 0.11 lower - 0.01 higher)	Low	Alcohol-related consequences were lower in the intervention groups compared with the control groups

Footnotes

16. Primary study [109] .
17. Primary study [109] .
18. Primary study [109] .
19. Primary study [109] .
20. Primary study [109] .

References

[109] O'Connor EA, Perdue LA, Senger CA, Rushkin M, Patnode CD, Bean SI, Jonas DE : Screening and Behavioral Counseling Interventions to Reduce Unhealthy Alcohol Use in Adolescents and Adults: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2018;320(18):1910-1928

11.2 – Behavioral counseling interventions for unhealthy alcohol use vs. minimal intervention or usual care

PICO

Population: Adults reporting alcohol use/use disorder
Intervention: Equity outcomes - Racial/ethnic disparities in AUD screening and treatment
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Minimal intervention or usual care	Behavioral interventions for unhealthy alcohol use/use disorder		
Any alcohol screening (Black vs Asian American race)	Relative risk: 1.52 (CI 95% 1.32 - 1.76) Based on data from 123002 participants in 1 studies[1]	-		-	Black adults were 52% more likely to report any alcohol screening than Asian American adults
Alcohol use discussions (Black vs Asian American race)	Relative risk: 1.4 (CI 95% 1.28 - 1.54) Based on data from 123002 participants in 1 studies[2]	-		-	Black adults were 40% more likely to discuss alcohol with their providers than Asian American adults
Any alcohol screening (White vs Asian American race)	Relative risk: 1.48 (CI 95% 1.28 - 1.72) Based on data from 123002 participants in 1 studies[3]	-		-	White adults were 48% more likely to report any alcohol screening than Asian American adults

Alcohol use discussions (White vs Asian American race)	Relative risk: 1.92 (CI 95% 1.74 - 2.1) Based on data from 123002 participants in 1 studies[4]	-	-	White adults were 92% more likely to discuss alcohol with their providers than Asian American adults
Any alcohol screening (Hispanic vs Asian American race)	Relative risk: 1.39 (CI 95% 1.16 - 1.67) Based on data from 123002 participants in 1 studies[5]	-	-	Hispanic adults were 39% more likely to report any alcohol screening than Asian American adults
Alcohol use discussions (Hispanic vs Asian American race)	Relative risk: 1.45 (CI 95% 1.28 - 1.65) Based on data from 123002 participants in 1 studies[6]	-	-	Hispanic adults were 45% more likely to discuss alcohol with their providers than Asian American adults
Any AUD treatment (all other races vs Asian American race)	Odds ratio: 1.31 (CI 95% 0.72 - 2.39) Based on data from 123002 participants in 1 studies[7]	-	-	Non-Hispanic people of all other races had higher odds of receiving any AUD treatment than Asian Americans
Specialty AUD treatment (all other races vs Asian American race)	Odds ratio: 1.54 (CI 95% 0.74 - 3.22) Based on data from 123002 participants in 1 studies[8]	-	-	Non-Hispanic people of all other races (Native American, Alaskan Native, people identifying with more than one race) had higher odds of receiving specialty AUD treatment than Asian Americans

Footnotes

1. Primary study [110] .
2. Primary study [110] .
3. Primary study [110] .
4. Primary study [110] .
5. Primary study [110] .
6. Primary study [110] .
7. Primary study [110] .
8. Primary study [110] .

References

[110] Mauro PM, Kane JC, Askari MS, Iwamoto D, Martins SS : Mind The Gap: Differences in Alcohol Use Screening And Discussions Among Adults Comparing Asian American And Other Racial And Ethnic Subgroups in the United States, 2015-2019. Alcohol and alcoholism (Oxford, Oxfordshire) 2022;

11.3 – Equity outcomes: geographic disparities in AUD screening and treatment

PICO

Population: Military service members and veterans reporting alcohol use/use disorder
Intervention: Equity outcomes - geographic disparities in AUD screening and treatment
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - geographic disparities in AUD screening		
Alcohol screening (rural vs suburban)	Odds ratio: 0.15 (CI 95% 0.14 - 0.16) Based on data from 5080 participants in 1 studies[1]	-		-	Rural-dwelling service members and veterans were less likely to receive alcohol screening than suburban-dwelling individuals.
Brief alcohol intervention: education (rural vs suburban)	Odds ratio: 0.15 (CI 95% 0.14 - 0.17) Based on data from 5080 participants in 1 studies[2]	-		-	Rural-dwelling service members and veterans were less likely to be educated about alcohol use following a positive screen than suburban-dwelling individuals.

Brief alcohol intervention: advice (rural vs suburban)	Odds ratio: 0.08 (CI 95% 0.06 - 0.09) Based on data from 5080 participants in 1 studies[3]	-	-	Rural-dwelling service members and veterans were less likely to receive advice about alcohol consumption following a positive screen than suburban-dwelling individuals.
Treatment initiation (rural vs urban)	Odds ratio: 0.88 (CI 95% 0.83 - 0.93) Based on data from 52165 participants in 1 studies[4]	-	-	Patients living in large and small rural areas each had 12% lower adjusted odds relative to patients living in urban areas of treatment initiation, respectively.
Treatment engagement (rural vs urban)	Odds ratio: 0.86 (CI 95% 0.77 - 0.97) Based on data from 14114 participants in 1 studies[5]	-	-	Among those who met HEDIS initiation criteria, those living in large and small rural areas each had 14% lower adjusted odds, respectively, of meeting treatment engagement criteria, relative to those living in urban areas.
Receipt of AUD medication (large rural vs urban)	Odds ratio: 0.84 (CI 95% 0.75 - 0.93) Based on data from 15062 participants in 1 studies[6]	-	-	Among those with diagnosed AUD, the adjusted odds of having filled one or more prescriptions for AUD medications was 16% lower among patients living in large rural areas as

				compared to those in urban areas.
Receipt of AUD medication (small rural vs urban)	Odds ratio: 0.83 (CI 95% 0.73 - 0.94) Based on data from 15062 participants in 1 studies[7]	-	-	Among those with diagnosed AUD, the adjusted odds of having filled one or more prescriptions for AUD medications was 17% lower among patients living in small rural areas as compared to those in urban areas.

Footnotes

1. Primary study [111] .
2. Primary study [111] .
3. Primary study [111] .
4. Primary study [112] .
5. Primary study [112] .
6. Primary study [112] .
7. Primary study [112] .

References

[111] McDaniel JT, Albright DL, Laha-Walsh K, Henson H, McIntosh S : Alcohol screening and brief intervention among military service members and veterans: rural-urban disparities. BMJ military health 2022;168(3):186-191
[112] Edmonds AT, Bensley KM, Hawkins EJ, Williams EC : Geographic differences in receipt of addictions treatment in a national sample of patients with alcohol use disorders from the U.S. Veterans Health Administration. Substance abuse 2021;42(4):559-568

11.4 – Equity outcomes: gender differences in AUD screening and treatment

PICO

Population: Adults reporting alcohol use/use disorder
Intervention: Equity outcomes - gender differences in AUD screening and treatment
Comparator: N/A

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - gender		

		differences in AUD screening and treatment		
Any alcohol screening	Relative risk: 1.22 (CI 95% 1.05 - 1.42) Based on data from 9663 participants in 1 studies[1]	-	-	Women were 22% more likely to report any alcohol screening than men
Alcohol use discussions	Relative risk: 0.82 (CI 95% 0.73 - 0.91) Based on data from 9663 participants in 1 studies[2]	-	-	Women were 18% less likely to discuss alcohol use with providers than men
Any alcohol treatment services	Odds ratio: 0.53 (CI 95% 0.33 - 0.86) Based on data from 2592 participants in 1 studies[3]	-	-	Women had much lower odds of utilizing any alcohol service than men
Specialty alcohol treatment services	Odds ratio: 0.41 (CI 95% 0.19 - 0.87) Based on data from 2592 participants in 1 studies[4]	-	-	Women had much lower odds of utilizing specialty services than men
12-step groups	Odds ratio: 0.39 (CI 95% 0.21 - 0.71) Based on data from 2592 participants in 1 studies[5]	-	-	Women had much lower odds of utilizing 12-step groups than men
Perceived need for treatment	Odds ratio: 1.02 (CI 95% 0.59 - 1.77) Based on data from 2420 participants in 1 studies[6]	-	-	There was no gender difference in the perceived need for help among those who had not used any services

Substance abuse treatment visits	Hazard ratio: 0.84 (CI 95% -) Based on data from 66053 participants in 1 studies[7]	-	-	Women were less likely to receive a face-to-face visit than men
Relapse prevention medication prescriptions	Hazard ratio: 0.89 (CI 95% -) Based on data from 66053 participants in 1 studies[8]	-	-	Women were less likely to receive an FDA-approved relapse prevention medication than men

Footnotes

1. Primary study [113] .
2. Primary study [113] .
3. Primary study [114] .
4. Primary study [114] .
5. Primary study [114] .
6. Primary study [114] .
7. Primary study [115] .
8. Primary study [115] .

References

[113] Mauro PM, Askari MS, Han BH : Gender differences in any alcohol screening and discussions with providers among older adults in the United States, 2015 to 2019. Alcoholism, clinical and experimental research 2021;45(9):1812-1820

[114] Gilbert PA, Pro G, Zemore SE, Mulia N, Brown G : Gender Differences in Use of Alcohol Treatment Services and Reasons for Nonuse in a National Sample. Alcoholism, clinical and experimental research 2019;43(4):722-731

[115] Mellinger JL, Fernandez A, Shedden K, Winder GS, Fontana RJ, Volk ML, Blow FC, Lok ASF : Gender Disparities in Alcohol Use Disorder Treatment Among Privately Insured Patients with Alcohol-Associated Cirrhosis. Alcoholism, clinical and experimental research 2019;43(2):334-341

12. Substance Use Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Both frequency-based and risk assessment screening instruments are accurate in identifying unhealthy drug use and drug use disorders among adults, although there is no direct evidence on the benefits or harms of screening. Pharmacotherapy and psychosocial interventions are effective in improving drug use outcomes, and effects are generally greater in treatment-seeking populations than in screen-detected populations.	

Certainty of the Evidence	Moderate

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Hispanic and Asian individuals receive psychosocial treatment at rates significantly lower than Whites, whereas Black individuals are more likely to receive treatment. However, both Black and Hispanic individuals have worse treatment retention and lower post-treatment abstinence rates than their White counterparts, and are also less likely to receive treatment engagement, follow-up care after an emergency department visit, and follow-up care after withdrawal from treatment.	

12.1 – Frequency-based and risk assessment screening vs. validated reference standard

PICO
Population: Adults and pregnant/postpartum individuals
Intervention: Frequency-based and risk assessment screening for substance use disorders
Comparator: Validated reference standard

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Validated reference standard	Frequency-based and risk assessment screening		
Screening accuracy for detecting unhealthy drug use	Based on data from 1512 participants in 3 studies[1]	Sensitivity ranged from 0.71 to 0.94 (95% CI, 0.62 to 0.97). Specificity ranged from 0.87 to 0.97 (95% CI, 0.83 to 0.98).		Low	

Screening accuracy for detecting unhealthy use of cannabis	Based on data from 1997 participants in 1 studies[2]	Sensitivity ranged from 0.79 to 0.82. Specificity, 0.93.	Low	
Screening accuracy for detecting unhealthy use of prescription drugs	Based on data from 2693 participants in 3 studies[3]	Sensitivity ranged from 0.44 to 0.71. Specificity ranged from 0.79 to 0.99.	Low	
Screening accuracy for detecting unhealthy use of heroin	Based on data from 1995 participants in 1 studies[4]	Sensitivity ranged from 0.77 to 0.78. Specificity, 1.00.	Low	
Screening accuracy for detecting unhealthy use of cocaine and methamphetamine	Based on data from 1996 participants in 1 studies[5]	Sensitivity ranged from 0.68 to 0.73. Specificity, 0.99.	Low	
Screening accuracy for detecting unhealthy prenatal drug use (pregnant/postpartum persons)	Based on data from 1456 participants in 3 studies[6]	Sensitivity ranged from 0.37 to 0.76 (95% CI, 0.24 to 0.86). Specificity ranged from 0.68 to 0.83 (95% CI, 0.55 to 0.91).	Low	

Footnotes

1. Systematic review [108]
2. Systematic review [108]
3. Systematic review [108]
4. Systematic review [108]
5. Systematic review [108]
6. Systematic review [108]

References

[108] Patnode CD, Perdue LA, Rushkin M, Dana T, Blazina I, Bougatsos C, Grusing S, O'Connor EA, Fu R, Chou R : Screening for Unhealthy Drug Use: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2020;323(22):2310-2328

12.2 - Psychosocial interventions vs. waitlist, minimal intervention, or usual care

PICO
Population: Screen-detected patients or those seeking treatment for substance use disorders
Intervention: Psychosocial interventions for unhealthy drug use/use disorders
Comparator: Waitlist, minimal intervention, or usual care

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Waitlist, minimal intervention, or usual care	Psychosocial interventions		
Drug use abstinence	Relative risk: 1.6 (CI 95% 1.24 - 2.13) Based on data from 3636 participants in 15 studies[1] Follow up 3 to 4 months	-		Moderate	At 3 to 4 months, psychosocial interventions were associated with increased likelihood of abstinence from drug use vs controls
Drug use abstinence	Relative risk: 1.25 (CI 95% 1.11 - 1.52) Based on data from 4031 participants in 14 studies[2] Follow up 6 to 12 months	-		Moderate	At 6 to 12 months, psychosocial interventions were associated with increased likelihood of abstinence from drug use vs controls
Serious adverse events	(CI 95% -) Based on data from 1198 participants in 4 studies[3]	-		Moderate	No harms or serious adverse events were reported in either intervention or control groups
Drug use days	Measured by: Scale: 0 - 7 Lower better Based on data from 5085 participants in 19 studies[4] Follow up 3 to 4 months	Difference: **MD 0.49 lower** (CI 95% 0.85 lower - 0.13 lower)		Moderate	At 3 to 4 months, psychosocial interventions were associated with decreased number of days of drug use (during last 7 days) vs controls

Drug use severity	Measured by: Scale: - Lower better Based on data from 4437 participants in 17 studies[5] Follow up 3 to 4 months	Difference: **SMD 0.18 lower** (CI 95% 0.32 lower - 0.05 lower)	Moderate	At 3 to 4 months, psychosocial interventions were also associated with decreased drug use severity vs controls

Footnotes
1. Systematic review [108] .
2. Systematic review [108] .
3. Systematic review [108] .
4. Systematic review [108] .
5. Systematic review [108] .

References
[108] Patnode CD, Perdue LA, Rushkin M, Dana T, Blazina I, Bougatsos C, Grusing S, O'Connor EA, Fu R, Chou R : Screening for Unhealthy Drug Use: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2020;323(22):2310-2328

12.3 - Naltrexone for opioid use disorder vs. placebo or no medication

PICO
Population: Screen-detected patients or those seeking treatment for substance use disorders
Intervention: Naltrexone for opioid use disorder
Comparator: Placebo or no medication

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Placebo or no medication	Naltrexone for opioid use disorder		
Treatment retention	Relative risk: 1.71 (CI 95% 1.13 - 2.49) Based on data from 1404 participants in 9 studies[1] Follow up 6 to 9 months			Moderate	Naltrexone was associated with an increased likelihood of treatment retention vs placebo or no naltrexone
Drug use relapse	Relative risk: 0.73 (CI 95% 0.62 - 0.85) Based on data from 1599 participants in 12 studies[2] Follow up 6 to 9 months			Moderate	Naltrexone was associated with decreased risk of relapse vs placebo or no naltrexone

Serious adverse events	Relative risk: 1.24 (CI 95% 0.11 - 10.21) Based on data from 638 participants in 3 studies[3] Follow up 6 to 9 months		Moderate	There was no difference in serious adverse events between naltrexone vs placebo or no medication conditions
Withdrawal due to adverse events	Relative risk: 1.54 (CI 95% 0.35 - 8.31) Based on data from 836 participants in 3 studies[4] Follow up 6 to 9 months		Moderate	There was no difference in withdrawal due to adverse events between naltrexone vs placebo or no medication conditions
Constipation	Relative risk: 0.97 (CI 95% 0.37 - 2.39) Based on data from 163 participants in 3 studies[5] Follow up 6 to 9 months		Moderate	There were no differences between naltrexone and control groups in risk of gastrointestinal adverse events, including constipation
Diarrhea	Relative risk: 1.94 (CI 95% 0.7 - 6.53) Based on data from 163 participants in 3 studies[6] Follow up 6 to 9 months		Moderate	There were no differences between naltrexone and control groups in risk of gastrointestinal adverse events, including diarrhea

Footnotes

1. Systematic review [108] .
2. Systematic review [108] .
3. Systematic review [108] .
4. Systematic review [108] .
5. Systematic review [108] .

References

[108] Patnode CD, Perdue LA, Rushkin M, Dana T, Blazina I, Bougatsos C, Grusing S, O'Connor EA, Fu R, Chou R : Screening for Unhealthy Drug Use: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2020;323(22):2310-2328

12.4 - Opioid agonist therapy vs. placebo or no medication

PICO
Population: Patients seeking treatment for substance use disorders
Intervention: Opioid agonist therapy (buprenorphine or methadone) for opioid use disorder
Comparator: Placebo or no medication

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Placebo or no medication	Opioid agonist therapy		
Drug use relapse	Relative risk: 0.75 (CI 95% 0.59 - 0.82) Based on data from 567 participants in 4 studies[1] Follow up 4 to 12 months			Moderate	Opioid agonist therapy was associated with decreased risk of relapse vs placebo or no opioid agonist therapy
Treatment retention	Relative risk: 2.58 (CI 95% 1.78 - 4.59) Based on data from 1099 participants in 7 studies[2] Follow up 4 to 12 months			Moderate	Opioid agonist therapy was associated with an increased likelihood of treatment retention vs placebo or no opioid agonist therapy
Serious adverse events	Relative risk: 0.32 (CI 95% 0.09 - 1.12) Based on data from 450 participants in 2 studies[3]			Moderate	There was no significant difference between buprenorphine vs placebo in risk of serious adverse events
Any adverse events	Relative risk: 1.14 (CI 95% 0.9 - 1.43) Based on data from 287 participants in 1 studies[4]			Moderate	There was no significant difference between buprenorphine vs placebo in risk of any adverse events

Withdrawal due to adverse events	Relative risk: 0.89 (CI 95% 10.06 - 13.7) Based on data from 83 participants in 1 studies[5]		Moderate	There was no significant difference between buprenorphine vs placebo in risk of withdrawal due to adverse events
Constipation	Relative risk: 2.36 (CI 95% 1.17 - 4.92) Based on data from 246 participants in 2 studies[6]		Moderate	Buprenorphine was associated with increased risk of constipation vs placebo
Nausea	Relative risk: 1.13 (CI 95% 0.41 - 6.07) Based on data from 393 participants in 2 studies[7]		Moderate	There were no differences between buprenorphine and control groups in risk of gastrointestinal adverse events, including nausea
Diaphoresis	Relative risk: 1.15 (CI 95% 0.55 - 2.73) Based on data from 476 participants in 3 studies[8]		Moderate	There was no significant difference between buprenorphine vs placebo in risk of diaphoresis

Footnotes

1. Systematic review [108] .
2. Systematic review [108] .
3. Systematic review [108] .
4. Systematic review [108] .
5. Systematic review [108] .
6. Systematic review [108] .
7. Systematic review [108] .
8. Systematic review [108] .

References

[108] Patnode CD, Perdue LA, Rushkin M, Dana T, Blazina I, Bougatsos C, Grusing S, O'Connor EA, Fu R, Chou R : Screening for Unhealthy Drug Use: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2020;323(22):2310-2328

12.5 - Equity outcomes: racial/ethnic disparities in SUD treatment

PICO
Population: Medicaid-insured adults with substance use disorder
Intervention: Equity outcomes - racial/ethnic disparities in SUD treatment
Comparator: No comparator

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	racial/ethnic disparities in SUD treatment		
Receipt of psychosocial treatment (Black vs White race)[1]	: 0.03 (CI 95% 0.02 - 0.04) Based on data from 35069 participants in 1 studies[2]	-		-	Black patients were significantly more likely to receive psychosocial treatment for SUD than Whites (estimated coefficients 0.030)
Receipt of psychosocial treatment (Asian vs White race)	: -0.17 (CI 95% -0.19 - -0.16) Based on data from 35069 participants in 1 studies[3]	-		-	Asian patients were significantly less likely to receive psychosocial treatment for SUD than Whites (estimated coefficients −0.174)
Receipt of psychosocial treatment (Other/Hispanic vs White race)	: -0.05 (CI 95% -0.06 - -0.04) Based on data from 35069 participants in 1 studies[4]	-		-	Hispanic and other race patients were significantly less likely to receive psychosocial treatment for SUD than Whites (estimated coefficients −0.054)
Follow-up within 30 days after ED visit (Black vs White race)	: -0.03 (CI 95% -0.07 - 0.02) Based on data from 35069 participants in 1 studies[5]	-		-	Black patients were significantly less likely to receive follow-up care within 30 days after ED visit than Whites (estimated

				coefficients −0.025)
Follow-up within 30 days after ED visit (Asian vs White race)	: -0.12 (CI 95% -0.21 - -0.03) Based on data from 35069 participants in 1 studies[6]	-	-	Asian patients were significantly less likely to receive follow-up care within 30 days after ED visit than Whites (estimated coefficients −0.123)
Follow-up within 30 days after ED visit (Other/Hispanic vs White race)	: -0.06 (CI 95% -0.1 - -0.02) Based on data from 35069 participants in 1 studies[7]	-	-	Hispanic and other race patients were significantly less likely to receive follow-up care within 30 days after ED visit than Whites (estimated coefficients −0.063)
Follow-up after withdrawal (Black vs White race)	: -0.06 (CI 95% -0.08 - -0.04) Based on data from 35069 participants in 1 studies[8]	-	-	Black patients were significantly less likely to receive follow-up care after withdrawal than Whites (estimated coefficients −0.063)
Follow-up after withdrawal (Asian vs White race)	: -0.18 (CI 95% -0.21 - -0.15) Based on data from 35069 participants in 1 studies[9]	-	-	Asian patients were significantly less likely to receive follow-up care after withdrawal than Whites (estimated coefficients −0.179)

Follow-up after withdrawal (Other/Hispanis vs White race)	: -0.13 (CI 95% -0.14 -) Based on data from participants in 1 studies[10]	-	-	Hispanic and other race patients were significantly less likely to receive follow-up care after withdrawal than Whites (estimated coefficients −0.125)
Rapid readmission (Black vs White race)	: -0.04 (CI 95% -0.06 - -0.01) Based on data from 35069 participants in 1 studies[11]	-	-	Black patients had lower rates of rapid readmission than Whites (estimated coefficients −0.035)
Rapid readmission (Asian vs White race)	: -0.13 (CI 95% -0.17 - -0.09) Based on data from 35069 participants in 1 studies[12]	-	-	Asian patients had lower rates of rapid readmission than Whites (estimated coefficients −0.129)
Rapid readmission (Other/Hispanic vs White race)	: -0.1 (CI 95% -0.12 - -0.08) Based on data from 35069 participants in 1 studies[13]	-	-	Hispanic and other race patients had lower rates of rapid readmission than Whites (estimated coefficients −0.099)
Treatment continuation (Black vs White race)	: 0.02 (CI 95% 0.02 - 0.03) Based on data from 35069 participants in 1 studies[14]	-	-	Black patients had higher rates of treatment continuation than Whites (estimated coefficient 0.023)
Treatment continuation (Asian vs White race)	: -0.09 (CI 95% -0.1 - -0.08) Based on data from 35069 participants in 1 studies[15]	-	-	Asian patients had lower rates of treatment continuation than Whites (estimated

				coefficient −0.091)
Treatment continuation (Other/Hisanic vs White race)	: -0.01 (CI 95% -0.02 - -0.01) Based on data from 35069 participants in 1 studies[16]	-	-	Hispanic and other race patients had lower rates of treatment continuation than Whites (estimated coefficient −0.015)

Footnotes

1. Estimated coefficients can be normed against sample means to identify which effects are large in relation to population averages
2. Systematic review [116] .
3. Systematic review [116] .
4. Systematic review [116] .
5. Systematic review [116] .
6. Systematic review [116] .
7. Systematic review [116] .
8. Systematic review [116] .
9. Systematic review [116] .
10. Systematic review [116] .
11. Systematic review [116] .
12. Systematic review [116] .
13. Systematic review [116] .
14. Systematic review [116] .
15. Systematic review [116] .
16. Systematic review [116] .

References

[116] Alegría M, Falgas-Bague I, Fukuda M, Zhen-Duan J, Weaver C, O'Malley I, Layton T, Wallace J, Zhang L, Markle S, Lincourt P, Hussain S, Lewis-Fernández R, John DA, McGuire T : Racial/Ethnic Disparities in Substance Use Treatment in Medicaid Managed Care in New York City: The Role of Plan and Geography. Medical care 2022;60(11):806-812

PICO

Population: Adults with any non-nicotine substance use disorder
Intervention: Equity outcomes - racial/ethnic disparities in SUD treatment
Comparator: No comparator

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - racial/ethnic		

		disparities in SUD treatment		
Treatment retention (Black vs White race)	Based on data from 2327 participants in 4 studies[1] Follow up 8 to 24 weeks	Black participants had worse SUD treatment retention (opioids, cocaine, cannabis, and alcohol) than White participants.	-	Black participants had worse SUD treatment retention than White participants
Treatment retention (Hispanic vs White race)	Based on data from 3260 participants in 3 studies[2] Follow up 12 to 24 weeks	Hispanic participants had worse SUD treatment retention (opioids and alcohol) than White participants.	-	Hispanic participants had worse SUD treatment retention than White participants
Abstinence post-treatment (Black vs White race)	Based on data from 1175 participants in 1 studies[3] Follow up 6 months	Black participants were less likely to be abstinent than White and Hispanic participants for cocaine and opioids.	-	Black participants were less likely to be abstinent than White and Hispanic participants
Abstinence post-treatment (Hispanic vs White race)	Based on data from 699 participants in 1 studies[4] Follow up 24 weeks	Hispanic participants were less likely to be abstinent than White participants for opioids.	-	Hispanic participants were less likely to be abstinent than White participants
Drug use days post-treatment (Black vs White race)	Based on data from 297 participants in 1 studies[5] Follow up 12 weeks	Black participants had more days of substance use post-treatment than White participants.	-	Black participants had more days of substance use post-treatment than White participants
Heavy drinking days post-treatment (Black vs White race)	Based on data from 655 participants in 1 studies[6] Follow up 12 months	Black participants had fewer heavy drinking days post-treatment than White participants.	-	Black participants had fewer heavy drinking days post-treatment than White participants

Footnotes

1. Systematic review [119] .
2. Systematic review [119] .
3. Systematic review [119] .
4. Systematic review [119] .
5. Systematic review [119] .

6. Systematic review [119] .

References

[119] Jordan A, Quainoo S, Nich C, Babuscio TA, Funaro MC, Carroll KM : Racial and ethnic differences in alcohol, cannabis, and illicit substance use treatment: a systematic review and narrative synthesis of studies done in the USA. The lancet. Psychiatry 2022;9(8):660-675

13. Depression Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Depression screening instruments, including the two questions about feeling down or hopeless and anhedonia, are accurate and pharmacological and non-pharmacological treatments for depression are effective. Although there are mixed findings on the benefits and harms of screening for depression in the general adult population, programs involving depression screening for postpartum women are associated with reduced risk of depression at 3 to 5 months postpartum compared with usual care. Screening instruments are most beneficial when combined with additional treatment supports, including treatment protocols, care management, and availability of specially trained depression care providers.	

Certainty of the Evidence	Moderate

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Stigmatization is a barrier to depression treatment and can manifest differently based on identity. Screening could help address inequities in depression care pathways and outcomes.	

13.1 – Primary care screening for depression with or without additional supports vs. usual care

PICO
Population: General adult population
Intervention: Primary care screening for depression with or without additional supports
Comparator: Usual care

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Usual care	Primary care screening		
Depression remission	Based on data from 2924 participants in 5 studies[1]	-		-	Screening programs generally increased the likelihood of remission and treatment response in general adult populations experiencing depressive symptoms. All studies showed greater

				remission or response in the intervention groups, but results were statistically significant only in the two largest studies with greatest additional supports beyond simple screening or results feedback. Results from these 2 studies are: 1. Reported 47% remission in the intervention group after 12 months compared with 28% in the control group, among those with newly-identified depression (RR, 1.71 [95% CI, 1.13 to 2.57]), with a very similar effect size at 24 months. 2. The largest study reported 58% remission in the intervention group compared with 49% in the control group at 12 months (RR, 1.19 [95% CI, 1.06 to 1.34]).

Footnotes

1. Systematic review [117] .

References

[117] O'Connor E, Rossom RC, Henninger M, Groom HC, Burda BU, Henderson JT, Bigler KD, Whitlock EP : Screening for Depression in Adults: An Updated Systematic Evidence Review for the U.S. Preventive Services Task Force [Internet]. Agency for Healthcare Research and Quality (US) 2016;

PICO
Population: Older adult population
Intervention: Primary care screening for depression with or without additional supports
Comparator: Usual care

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Usual care	Primary care screening		
Depression remission	Based on data from 890 participants in 4 studies[1]	-		-	Screening programs were not successful in reducing depression in older adults, and even had a clinically significant (but not statistically significant) paradoxically negative effect in one new study for this body of evidence conducted in the Netherlands.

Footnotes
2. Systematic review [130] .

References
[130] Siu AL, Bibbins-Domingo K, Grossman DC, Baumann LC, Davidson KW, Ebell M, García FAR, Gillman M, Herzstein J, Kemper AR, Krist AH, Kurth AE, Owens DK, Phillips WR, Phipps MG, Pignone MP : Screening for Depression in Adults: US Preventive Services Task Force Recommendation Statement. JAMA 2016;315(4):380-7

PICO
Population: Pregnant and postpartum women
Intervention: Primary care screening for depression with or without additional supports
Comparator: Usual care

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Usual care	Primary care screening		

Depression prevalence	Based on data from 11869 participants in 6 studies[1] Follow up 3-5 months	Trials in postpartum women showed 28 to 59 percent reductions in the risk of depression at 3- to 5-month followup after participating in programs involving depression screening, with or without additional treatment components, compared to usual care. This effect was smaller and not statistically significant in the trial of pregnant women, which included little beyond screening results feedback For identifying major depressive disorder using a cutoff of 13 on the English-language Edinburgh Postnatal Depression Scale, sensitivity ranged from 0.67 (95% CI, 0.18 to 0.96) to 1.00 (95% CI, 0.67 to 1.00) and specificity ranged from 0.87 (95% CI, 0.79 to 0.93) to 0.99 (95% CI, 0.97 to 1.00).	-	There were relative reductions of 28% to 59% in the risk of depression at follow-up compared with usual care, which translated to 2.1% to 9.1% absolute reductions in depression prevalence..

Footnotes

3. Systematic review [118] .

References

[118] O'Connor E, Rossom RC, Henninger M, Groom HC, Burda BU : Primary Care Screening for and Treatment of Depression in Pregnant and Postpartum Women: Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2016;315(4):388-406

14. Dental Caries Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
There is no direct evidence on benefits and harms of primary care oral health screening or referral to dentists. Primary care pediatrician examinations are accurate at identifying cavities and predicting future caries in children under the age of 5 years. Dietary fluoride supplementation and fluoride varnish are associated with improved caries outcomes in higher-risk children.	

Certainty of the Evidence	Moderate

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Racialized and socioeconomically disadvantaged groups, people of Indigenous status, and those with government-assisted insurance or no insurance are less likely to use dental care services, and rural residents are less likely to report being satisfied with dental care than their urban counterparts. Cost and location should not be barriers to screening for dental problems and for dental care, and travel grants can support access to care for people living in remote communities.	

14.1 – Primary care pediatrician exam vs. pediatric dentist exam

PICO
Population: Children <36 months of age
Intervention: Primary care pediatrician exam following 2-4 hours of training
Comparator: Pediatric dentist exam

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Usual care	Primary care screening		
Identification of a cavitated lesion	Based on data from 258 participants in 1 studies[1]	Sensitivity, 0.76 (95% CI, 0.55 to 0.91). Specificity, 0.95 (95% CI, 0.92 to 0.98).		Low	
Identification of need for referral	Based on data from 258 participants in 1 studies[2]	Sensitivity, 0.63 (95% CI, 0.42 to 0.81. Specificity, 0.98 (95% CI, 0.95 to 0.99).		Low	

Identification of nursing caries	Based on data from 61 participants in 1 studies[3]	Sensitivity, 1.00. Specificity, 0.87.	Low	

Footnotes
1. Systematic review [120]
2. Systematic review [120]
3. Systematic review [120]

References
[120] Chou R, Pappas M, Dana T, Selph S, Hart E, Fu RF, Schwarz E : Screening and Interventions to Prevent Dental Caries in Children Younger Than 5 Years: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;326(21):2179-2192

14.2 – Primary care pediatrician exam vs. pediatric dentist exam

PICO
Population: Children aged 1 year
Intervention: Dundee Caries Risk Assessment Model administered by health visitor nurses
Comparator: Dental exam following criteria developed for the Dundee selective threshold methods for caries detection

Summary of findings table

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Usual care	Primary care screening		
Predicting future caries	Based on data from 1681 participants in 1 studies[1]	Sensitivity, 0.53. Specificity, 0.77.		Low	

Footnotes
1. Systematic review [120]

References
[120] Chou R, Pappas M, Dana T, Selph S, Hart E, Fu RF, Schwarz E : Screening and Interventions to Prevent Dental Caries in Children Younger Than 5 Years: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;326(21):2179-2192

14.3 – Oral health education vs. usual care

PICO
Population: Mothers of caries-free children aged 12 to 36 months
Intervention: Oral health education

Comparator: Usual care

Summary of findings tables

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Usual care	Primary care screening		
Risk of incident dental caries	Relative risk: 0.39 (CI 95% 0.18 - 0.85) Based on data from 104 participants in 1 studies[1] Follow up 6 months	-		Low	Oral health education for mothers of caries-free children was associated with reduced risk of incident dental caries at 6 months vs usual care

Footnotes

2. Systematic review [120] .

References

[120] Chou R, Pappas M, Dana T, Selph S, Hart E, Fu RF, Schwarz E : Screening and Interventions to Prevent Dental Caries in Children Younger Than 5 Years: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;326(21):2179-2192

14.4 – Oral health education vs. usual care

PICO

Population: Mothers of caries-free children aged 12 to 36 months
Intervention: Oral health education
Comparator: Usual care

Summary of findings tables

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Usual care	Oral health education		
Risk of caries-related treatment	(CI 95% -) Based on data from 92476 participants in 6 studies[1]	-		Low	Receiving a dental referral from a dentist was associated with increased likelihood of subsequent caries-related treatment compared with receiving a dental referral from a primary care clinician

Footnotes
3. Systematic review [120] .

References
[120] Chou R, Pappas M, Dana T, Selph S, Hart E, Fu RF, Schwarz E : Screening and Interventions to Prevent Dental Caries in Children Younger Than 5 Years: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;326(21):2179-2192

14.5 – Dietary fluoride supplementation vs. placebo or no intervention

PICO
Population: Children <36 months of age
Intervention: Dietary fluoride supplementation
Comparator: Placebo or no intervention

Summary of findings tables

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Placebo or no intervention	Dietary fluoride supplementation		
Risk of incident dental caries	Based on data from 3312 participants in 5 studies[1]	Dietary fluoride supplementation in settings with water fluoridation levels below 0.6 ppm F were associated with decreased incidence of dental caries compared with no fluoride supplementation (percentage reduction ranged from 48% to 72% for primary teeth and from 51% to 81% for primary tooth surfaces).		Moderate	Dietary fluoride supplementation was associated with decreased incidence of dental caries compared with no fluoride supplementation
Risk of fluorosis	Based on data from participants in 19 studies[2]	Intake of fluoride supplementation was associated with increased risk of mild to moderate fluorosis (OR range, 4.2 to 15.6).		Moderate	Intake of fluoride supplementation was associated with increased risk of mild to moderate fluorosis compared with no supplemenation

Footnotes
1. Systematic review [120] .
2. Systematic review [120] .

References
[120] Chou R, Pappas M, Dana T, Selph S, Hart E, Fu RF, Schwarz E : Screening and Interventions to Prevent Dental Caries in Children Younger Than 5 Years: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;326(21):2179-2192

14.6 – Topical fluoride application vs. placebo or no intervention

PICO
Population: Children <36 months of age
Intervention: Topical fluoride application
Comparator: Placebo or no intervention

Summary of findings tables

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Placebo or no intervention	Topical fluoride supplementation		
Risk of incident dental caries	Relative risk: 0.8 (CI 95% 0.66 - 0.95) Based on data from 8177 participants in 12 studies[1]	-		Moderate	Topical fluoride was associated with decreased likelihood of incident caries compared with placebo or no varnish
Risk of fluorosis	(CI 95% -) Based on data from 4141 participants in 2 studies[2]	-		Moderate	There were no differences in risk of fluorosis between topical fluoride varnish versus placebo or no varnish
Adverse events	(CI 95% -) Based on data from 4141 participants in 2 studies[3]	-		Moderate	There were no differences in risk of adverse events between topical fluoride varnish versus placebo or no varnish
Risk of caries increment	Measured by: Scale: - Lower better Based on data from 5733 participants in 13 studies[4]	Difference: **MD 0.94 lower** (CI 95% 1.74 lower - 0.34 lower)		Moderate	Topical fluoride was associated with decreased caries increment compared with placebo or no varnish

Footnotes
1. Systematic review [120] .
2. Systematic review [120] .
3. Systematic review [120] .
4. Systematic review [120] .

References

[120] Chou R, Pappas M, Dana T, Selph S, Hart E, Fu RF, Schwarz E : Screening and Interventions to Prevent Dental Caries in Children Younger Than 5 Years: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;326(21):2179-2192

14.7 – Xylitol vs. placebo or no intervention

PICO

Population: Children <36 months of age
Intervention: Xylitol
Comparator: Placebo or no intervention

Summary of findings tables

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Placebo or no intervention	Xylitol		
Risk of caries increment	(CI 95% -) Based on data from 159 participants in 2 studies[1]	-		Low	Xylitol tablets or wipes for associated with decreased caries increment compared with placebo or no intervention
Risk of incident dental caries	(CI 95% -) Based on data from 159 participants in 2 studies[2]	-		Low	Xylitol tablets or wipes for associated with decreased likelihood of incident caries compared with placebo or no intervention

Footnotes

5. Systematic review [120] .
6. Systematic review [120] .

References

[120] Chou R, Pappas M, Dana T, Selph S, Hart E, Fu RF, Schwarz E : Screening and Interventions to Prevent Dental Caries in Children Younger Than 5 Years: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA 2021;326(21):2179-2192

14.8 – Equity outcomes: oral health disparities among children with special needs

PICO

Population: Children under 18 years of age
Intervention: Equity outcomes - oral health disparities among children with special needs
Comparator: healthy controls

Summary of findings tables

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		Healthy controls	Equity outcomes - Oral health disparities among children with special needs		
Decayed, missing, and filled permanent teeth (DMFT) index	Measured by: Scale: - Lower better Based on data from 1676 participants in 13 studies[1]	Difference: **SMD 0.44 higher** (CI 95% 0.34 higher - 0.54 higher)		Moderate	The decayed, missing, and filled permanent teeth (DMFT) index values were significantly higher in children with special needs compared with healthy controls.
Plaque index	Measured by: Scale: - Lower better Based on data from 1010 participants in 4 studies[2]	Difference: **SMD 0.16 higher** (CI 95% 0.03 higher - 0.23 higher)		Moderate	The plaque index values were significantly higher in children with special needs compared with healthy controls.
Community periodontal index, and treatment needs (CPITN) index	Measured by: Scale: - Lower better Based on data from 494 participants in 2 studies[3]	Difference: **SMD 1.42 higher** (CI 95% 1.22 higher - 1.62 higher)		Moderate	The community periodontal index, and treatment needs (CPITN) index values were significantly higher in children with special needs compared with healthy controls.
Oral hygiene index-simplified (OHI-S) index	Measured by: Scale: - Lower better Based on data from 705 participants in 5 studies[4]	Difference: **SMD 0.80 higher** (CI 95% 0.64 higher - 0.96 higher)		Moderate	The oral hygiene index-simplified (OHI-S) index values were significantly higher in children with special needs compared with healthy controls.
Gingiva index	Measured by: Scale: - Lower better Based on data from 600 participants in 3 studies[5]	Difference: **SMD 0.20 lower** (CI 95% 0.35 lower - 0.04 lower)		Moderate	The gingiva index values were significantly lower in children with special needs compared with healthy controls.

Footnotes
1. Systematic review [121] .
2. Systematic review [121] .
3. Systematic review [121] .
4. Systematic review [121] .
5. Systematic review [121] .

References
[121] Ningrum V, Bakar A, Shieh T-M, Shih Y-H : The Oral Health Inequities between Special Needs Children and Normal Children in Asia: A Systematic Review and Meta-Analysis. Healthcare (Basel, Switzerland) 2021;9(4):

14.9 – Equity outcomes: sociodemographic disparities in dental care use

PICO
Population: Individuals aged 18 years or older
Intervention: Equity outcomes - sociodemographic disparities in dental care use
Comparator: No comparator

Summary of findings tables

Outcome	Study results and measurements	Absolute effect estimates		Certainty of the Evidence	Plain language summary
		No comparator	Equity outcomes - Sociodemographic disparities in dental care use		
Dental care use (recent immigrants vs native-born counterparts)	Odds ratio: 0.73 (CI 95% -) Based on data from 9625440 participants in 1 studies[1]	-		-	Recent immigrants were less likely to use dental care at least once a year than their native-born counterparts (OR 0.73; standard error 0.10)
Dental care use (visible minority vs White race)	Odds ratio: 0.73 (CI 95% -) Based on data from 9625440 participants in 1 studies[2]	-		-	Visible minorities were less likely to use dental care at least once a year than their White counterparts (OR 0.73; standard error 0.05)
Dental care use (male vs female)	Odds ratio: 0.63 (CI 95% -) Based on data from 9625440 participants in 1 studies[3]	-		-	Males were less likely to use dental care at least once a year than their female counterparts (OR 0.63; standard error 0.03)

Dental care use (some post-secondary vs post secondary education)	Odds ratio: 0.74 (CI 95% -) Based on data from 9625440 participants in 1 studies[4]	-	-	People with some post-secondary education were less likely to use dental care at least once a year than those with post-secondary education (OR 0.74; standard error 0.11)
Dental care use (secondary vs post secondary education)	Odds ratio: 0.7 (CI 95% -) Based on data from 9625440 participants in 1 studies[5]	-	-	People with secondary education were less likely to use dental care at least once a year than those with post-secondary education (OR 0.70; standard error 0.05)
Dental care use (less than secondary vs post secondary education)	Odds ratio: 0.4 (CI 95% -) Based on data from 9625440 participants in 1 studies[6]	-	-	People with less than secondary education were all less likely to use dental care at least once a year than those with post-secondary education (OR 0.40; standard error 0.03)
Dental care use (low vs high income)	Odds ratio: 0.29 (CI 95% -) Based on data from 9625440 participants in 1 studies[7]	-	-	People with lower income were less likely to use dental care than those with higher income (OR 0.29; standard error 0.03)
Dental care use (government-assisted vs employer-based dental insurance)	Odds ratio: 0.67 (CI 95% -) Based on data from 9625440 participants in 1 studies[8]	-	-	People with government-assisted dental insurance were less likely to use dental care than those with employer-based dental insurance (OR 0.67; standard error 0.08)
Dental care use (no insurance vs employer-based dental insurance)	Odds ratio: 0.25 (CI 95% -) Based on data from 9625440 participants in 1 studies[9]	-	-	People with no insurance were less likely to use dental care than those with employer-based dental insurance (OR 0.25; standard error 0.02)

Dental visit past year (male vs female)	Odds ratio: 1.43 (CI 95% 1.22 - 1.67) Based on data from 20864 participants in 1 studies[10]	-	-	Males were at a significant increased likelihood of not visiting the dentist within the past year than females
Dental visit past year (Indigenous vs not Indigenous)	Odds ratio: 1.21 (CI 95% 0.87 - 1.68) Based on data from 20864 participants in 1 studies[11]	-	-	Individuals of Indigenous status were at a significant increased likelihood of not visiting the dentist within the past year than non-Indigenous status individuals
Dental visit past year (high vs low education)	Odds ratio: 0.62 (CI 95% 0.48 - 0.78) Based on data from 20864 participants in 1 studies[12]	-	-	Individuals with low household income (less than high school diploma) were at a significant increased likelihood of not visiting the dentist within the past year than those with higher educational attainment
Dental visit past year (high vs low income)	Odds ratio: 0.33 (CI 95% 0.25 - 0.45) Based on data from 20864 participants in 1 studies[13]	-	-	Individuals with low household income (< $30,000) were at a significant increased likelihood of not visiting the dentist within the past year than those with higher income
Dental visit past year (dental insurance vs no dental insurance)	Odds ratio: 0.27 (CI 95% 0.19 - 0.4) Based on data from 20864 participants in 1 studies[14]	-	-	Individuals with no dental insurance were at a significant increased likelihood of not visiting the dentist within the past year than those with private insurance

Footnotes

1. Systematic review [122] .
2. Systematic review [122] .
3. Systematic review [122] .
4. Systematic review [122] .

5. Systematic review [122] .
6. Systematic review [122] .
7. Systematic review [122] .
8. Systematic review [122] .
9. Systematic review [122] .
10. Systematic review [123] .
11. Systematic review [123] .
12. Systematic review [123] .
13. Systematic review [123] .
14. Systematic review [123] .

References

[122] Sano Y, Antabe R : Regular Dental Care Utilization: The Case of Immigrants in Ontario, Canada. Journal of immigrant and minority health 2022;24(1):162-169
[123] Zangiabadi S, Costanian C, Tamim H : Dental care use in Ontario: the Canadian community health survey (CCHS). BMC oral health 2017;17(1):165

14.10 – Equity outcomes: sociodemographic disparities in patient satisfaction with dental care

PICO

Population: Parents/caregivers of school children
Intervention: Equity outcomes – sociodemographic disparities in patient satisfaction with dental care
Comparator: No comparator

Summary of findings tables

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Comparator	Equity outcomes - Sociodemographic disparities in satisfaction		
Patient satisfaction (male vs female)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[1]	**42.4** Mean	**41.8** Mean	-	Males were less satisfied with oral health care than females
		Difference: **MD 0.66 lower** (CI 95% 1.30 lower - 0.03 lower)			
Patient satisfaction (Canadian-born vs foreign-born)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[2]	**39.3** Mean	**42.6** Mean	-	Those born in Canada were more satisfied with oral health care than foreign-born individuals
		Difference: **MD 3.25 higher** (CI 95% 2.43 higher - 4.08 higher)			

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Patient satisfaction (North American vs other ethnicity)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[3]	**40.7** Mean	**42.5** Mean	-	North Americans were more satisfied with oral health care than individuals from other ethnic groups
		Difference: **MD 1.80 higher** (CI 95% 1.02 higher - 2.58 higher)			
Patient satisfaction (single vs married)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[4]	**42.4** Mean	**41.5** Mean	-	Married individuals were more satisfied with oral health care than single individuals
		Difference: **MD 0.94 higher** (CI 95% 0.30 higher - 1.57 higher)			
Patient satisfaction (low vs high income)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[5]	**42.8** Mean	**41.7** Mean	-	Individuals with incomes incomes < 40,000$ CAD were less satisfied with oral health care than those with incomes ≥ 40,000$ CAD
		Difference: **MD 1.04 lower** (CI 95% 1.49 lower - 0.59 lower)			
Patient satisfaction (dental knowledge vs no dental knowledge)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[6]	**40.5** Mean	**42.5** Mean	-	Individuals with oral health knowledge were less satisfied with oral health care than those with no oral health knowledge
		Difference: **MD 1.93 higher** (CI 95% 0.7 higher - 3.16 higher)			
Patient satisfaction (dental insurance vs no dental insurance)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[7]	**41.4** Mean	**42.8** Mean	-	Individuals with dental insurance coverage were more satisfied with oral health care than those without dental insurance coverage
		Difference: **MD 1.47 higher** (CI 95% 1.03 higher - 1.91 higher)			
Patient satisfaction (family dentist vs no family dentist)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[8]	**37.3** Mean	**42.6** Mean	-	Individuals with a family dentist were more satisfied with oral health care than those without a family dentist
		Difference: **MD 5.31 higher** (CI 95% 4.39 higher - 6.24 higher)			

Patient satisfaction (private vs public dental clinic)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[9]	**40.8** Mean	**42.4** Mean	-	Individuals with access to private dental clinics were more satisfied with oral health care than those with access to public clinics
		Difference: **MD 1.64 higher** (CI 95% 0.64 higher - 2.64 higher)			
Patient satisfaction (difficult vs easy finding dentist)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[10]	**42.6** Mean	**39.0** Mean	-	Individuals with difficulty finding a dentist were less satisfied with oral health care than those with ease in finding a dentist
		Difference: **MD 3.53 lower** (CI 95% 4.39 lower - 2.67 lower)			
Satisfaction with dental office location (urban vs rural)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[11]	**3.5** Mean	**3.6** Mean	-	Urban residents reported greater patient satisfaction with dental office location compared with rural residents
		Difference: **MD 0.09 higher** (CI 95% 0.02 higher - 0.15 higher)			
Satisfaction with dental equipment (urban vs rural)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[12]	**3.7** Mean	**3.6** Mean	-	Urban residents reported greater patient satisfaction with dental equipment compared with rural residents
		Difference: **MD 0.08 lower** (CI 95% 0.14 lower - 0.02 lower)			
Satisfaction with cost of dental treatment (urban vs rural)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[13]	**2.8** Mean	**3.0** Mean	-	Urban residents reported greater patient satisfaction with cost of dental treatment compared with rural residents
		Difference: **MD 0.19 higher** (CI 95% 0.10 higher - 0.29 higher)			
Satisfaction with cleanliness of the dental office (urban vs rural)	Measured by: Scale: - High better Based on data from 1788 participants in 1 studies[14]	**3.8** Mean	**3.7** Mean	-	Urban residents reported greater patient satisfaction with cleanliness of the dental office compared with rural residents
		Difference: **MD 0.08 lower** (CI 95% 0.13 lower - 0.02 lower)			

Footnotes

1. Systematic review [124] .
2. Systematic review [124] .
3. Systematic review [124] .
4. Systematic review [124] .
5. Systematic review [124] .
6. Systematic review [124] .
7. Systematic review [124] .
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10. Systematic review [124] .
11. Systematic review [124] .
12. Systematic review [124] .
13. Systematic review [124] .
14. Systematic review [124] .

References

[124] Alhozgi A, Feine JS, Tanwir F, Shrivastava R, Galarneau C, Emami E : Rural-urban disparities in patient satisfaction with oral health care: a provincial survey. BMC oral health 2021;21(1):261

15. Poverty Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Social needs screening and in-person resource navigation within healthcare settings can improve access to community-based resources for families with unmet basic needs.	

Certainty of the Evidence	Moderate

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative

15.1 – Screening for basic needs and referral to services vs. standard care

PICO
Population: Mothers of healthy infants
Intervention: Screening for basic needs and referral to services
Comparator: Standard care

Summary of findings tables

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Standard care	Screening for basic needs and referral to services		
Enrollment in Community Resources Since Baseline When Child Was 12 Months of Age	Odds ratio: 2.1 (CI 95% 1.2 - 3.7) Based on data from 336 participants in 1 studies[1]	-		Moderate	At the 12-month well child care visit, more WE CARE mothers had enrolled in ≥1 new resource compared to standard care mothers.
Clinician Referrals to Community Resources at Index Well Child Care Visit	Odds ratio: 29.6 (CI 95% 14.7 - 59.6) Based on data from 336 participants in 1 studies[2]	-		Moderate	More WE CARE mothers received ≥1 referral to any community resource at the index visit than control mothers.

Footnotes
1. Primary study [101]
2. Primary study [101]

References

[101] Garg A, Toy S, Tripodis Y, Silverstein M, Freeman E : Addressing social determinants of health at well child care visits: a cluster RCT. Pediatrics 2015;135(2):e296-304

15.2 – Poverty screening and in-person help to access services vs. poverty screening and written community resource information

PICO

Population: Caregivers accompanying minor children to nonacute medical visits
Intervention: Poverty screening and in-person help to access services
Comparator: Poverty screening and written community resource information

Summary of findings tables

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Poverty screening and written community resource information	Poverty screening and in-person help to access services		
Change in reported social needs	Measured by: Scale: - Lower better Based on data from 1809 participants in 1 studies[1] Follow up 4 months	Difference: **MD 0.61 lower** (CI 95% 0.26 lower - 0.92 lower)		Moderate	Caregivers in the intervention arm reported a decrease in their number of social needs by a mean (SE) of −0.39 (0.13) needs, while caregivers in the control arm reported a small increase in the number of social needs by a mean (SE) of 0.22 (0.13) more needs, for a mean (SE) cumulative between-group difference of 0.61 (0.18) needs (P < .001).

Change in child global health	Measured by: Scale: - Lower better Based on data from 1809 participants in 1 studies[2] Follow up 4 months	Difference: **MD 0.24 lower** (CI 95% 0.10 lower - 0.38 lower)	Moderate	Caregiver report of child global health (in which lower scores represent better health) improved a mean (SE) of −0.36 (0.05) in the intervention arm and a mean (SE) of −0.12 (0.05) in the control arm, resulting in a mean (SE) significant difference of −0.24 (0.07) between arms (P < .001)

Footnotes

1. Primary study [98] .
2. Primary study [98] .

References

[98] Gottlieb LM, Hessler D, Long D, Laves E, Burns AR, Amaya A, Sweeney P, Schudel C, Adler NE : Effects of Social Needs Screening and In-Person Service Navigation on Child Health: A Randomized Clinical Trial. JAMA pediatrics 2016;170(11):e162521

15.3 – Screening, resource referral, and connection with services vs. screening only

PICO (15.3)

Population: ED patients at a US safety net hospital with at least one social need identified
Intervention: Screening, resource referral, and connection with services
Comparator: Screening only

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Screening	Screening, resource referral and connection		
Patient aware of agency that can help with primary need	Odds ratio: 2.37 (CI 95% 1.26 - 4.46) Based on data from 459 participants in 1 studies[1] Follow up 1 month	-		Low	Participants in the intervention group were more likely than those in the control group to be aware of an agency that could help meet their social, economic, environmental or legal need.

Patient made contact with agency that can help with primary need	Odds ratio: 2.45 (CI 95% 1.15 - 5.2) Based on data from 459 participants in 1 studies[2] Follow up 1 month	-	Low	Intervention participants were more likely to have made contact with the agency that could help meet their need
Patient has medical home	Odds ratio: 3.62 (CI 95% 1.13 - 11.52) Based on data from 459 participants in 1 studies[3] Follow up 1 month	-	Low	Intervention participants were more likely than control participants to identify as having a medical home that was not the ED at 1-month follow-up.
Patient has appointment with primary medical doctor	Odds ratio: 1.86 (CI 95% 0.83 - 4.17) Based on data from 459 participants in 1 studies[4] Follow up 1 month	-	Low	There was no statistical difference in the odds of participants that had an appointment with a primary doctor at 1 month.

Footnotes
1. Primary study [99] .
2. Primary study [99] .
3. Primary study [99] .
4. Primary study [99] .

References
[99] Losonczy LI, Hsieh D, Wang M, Hahn C, Trivedi T, Rodriguez M, Fahimi J, Alter H : The Highland Health Advocates: a preliminary evaluation of a novel programme addressing the social needs of emergency department patients. Emergency medicine journal : EMJ 2017;34(9):599-605

15.4 – In-depth advice about welfare benefits and debts vs. Propensity score weighted comparison group

PICO
Population: Adults aged 18 years or older
Intervention: In-depth advice about welfare benefits and debts
Comparator: Propensity score weighted comparison group

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Propensity score weighted comparison group	Welfare advice		

Financial strain	Odds ratio: 0.42 (CI 95% 0.23 - 0.77) Based on data from 901 participants in 1 studies[1] Follow up 3 months	-	Low	There was a significant improvement in perceived financial strain among the advice group compared with controls
Participants with common mental disorder	Odds ratio: 0.57 (CI 95% 0.3 - 1.07) Based on data from 901 participants in 1 studies[2] Follow up 3 months	-	Low	The proportion of individuals meeting criteria for common mental disorder decreased over time to a greater extent among the advice group than the control group. However, the group × time interaction was not statistically significant. The reduction in proportion meeting CMD criteria was significantly greater for the advice group relative to the controls among women (rOR = 0.37, 95% CI 0.20–0.70, P = 0.002) and Black/Black British participants (rOR = 0.09, 95% CI 0.03–0.28, P<0.001).
Well-being	: 0.1 (CI 95% -0.74 - 0.94) Based on data from 901 participants in 1 studies[3] Follow up 3 months	-	Low	There was no evidence for any difference in change in well-being scores between the two groups. In subgroup analyses, recipients who received a positive outcome from advice demonstrated significantly improved well-being scores compared with controls (β-coefficient = 1.29, 95% CI 0.25–2.32, P = 0.015).

Consultation frequency	: 0.04 (CI 95% -0.2 - 0.29) Based on data from 901 participants in 1 studies[4] Follow up 3 months	-	Low	There was no evidence for an impact of advice on 3-month consultation frequency. The welfare advice group reported more frequent consultations than controls (12 month mean consultation frequency of 13.1 [SD 12.8] vs. 8.6 [SD 9.1]; β-coefficient = 0.04, 95% CI −0.20 to 0.20, P = 0.730).

Footnotes

1. Primary study [100] .
2. Primary study [100] .
3. Primary study [100] .
4. Primary study [100] .

References

[100] Woodhead C, Khondoker M, Lomas R, Raine R : Impact of co-located welfare advice in healthcare settings: prospective quasi-experimental controlled study. The British journal of psychiatry : the journal of mental science 2017;211(6):388-395

16. Intimate Partner Violence Screening

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Screening instruments are accurate in identifying past-year and current intimate partner violence (IPV) in adults, although there is no evidence of screening benefit on future IPV incidence, quality of life, adverse events, psychological distress, or healthcare utilization.	

Certainty of the Evidence	Moderate

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
Neighbourhoods with a higher percentage of racialized residents have lower availability of IPV screening services than White majority neighbourhoods, despite rates of police-reported IPV being higher among racialized compared with White women. A smaller proportion of rural compared to urban emergency departments have official IPV screening policies and standardized screening services available for patients. Screening can help connect women with effective supports in addition to making clinical spaces feel safer for those experiencing IPV.	

16.1 – Screening for IPV vs. no screening

PICO
Population: Women aged 18 years or older
Intervention: Screening for IPV
Comparator: No screening

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		No screening	Screening for IPV		
IPV occurence	Based on data from 3759 participants in 3 studies[1] Follow up 3 to 18 months	There was no significant difference in IPV between screening and control groups over 3-18 months.		Moderate	There was no significant difference in IPV between screening and control groups over 3-18 months.
Quality of life	Based on data from 3415 participants in 2 studies[2] Follow up 6 to 18 months	There was no significant difference in quality of life between screening and control groups over 6-18 months.		Moderate	There was no significant difference in quality of life between screening and control groups over 6-18 months.
Harms of screening	Based on data from 935 participants in 2 studies[3]	There were no harms or adverse events associated with IPV screening.		Low	There were no harms or adverse events associated with IPV screening.

Depression, PTSD, and healthcare utilization	Based on data from 935 participants in 2 studies[4]	There was no significant difference in depression, PTSD, or health care utilization outcomes between screening and control groups.	Low	There was no significant difference in depression, PTSD, or health care utilization outcomes between screening and control groups.

Footnotes
1. Systematic review [84]
2. Systematic review [84]
3. Systematic review [84]
4. Systematic review [84]

References
[84] Curry SJ, Krist AH, Owens DK, Barry MJ, Caughey AB, Davidson KW, Doubeni CA, Epling JW, Grossman DC, Kemper AR, Kubik M, Kurth A, Landefeld CS, Mangione CM, Silverstein M, Simon MA, Tseng C-W, Wong JB : Screening for Intimate Partner Violence, Elder Abuse, and Abuse of Vulnerable Adults: US Preventive Services Task Force Final Recommendation Statement. JAMA 2018;320(16):1678-1687

16.2 – Screening for IPV vs. no screening

PICO
Population: Women aged 18 years or older
Intervention: Screening for past-year IPV
Comparator: Validated reference standard

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Validated reference standard	Screening for past-year IPV		
Sensitivity[1]	Based on data from 6331 participants in 5 studies[2]	Across 5 screeners (HARK, HITS, E-HITS, PVS, and WAST), sensitivity for detecting past-year IPV ranged from 65% to 87%.		Low	Sensitivity for detecting past-year IPV ranged from 65% to 87%.
Specificity	Based on data from 6331 participants in 5 studies[3]	Across 5 screeners (HARK, HITS, E-HITS, PVS, and WAST), specificity for detecting past-year IPV ranged from 80% to 95%.		Low	Specificity for detecting past-year IPV ranged from 80% to 95%.

Footnotes
1. 5 tools for detecting past-year IPV were assessed: Humiliation, Afraid, Rape, Kick (HARK); Hurt, Insulted, Threaten, Scream (HITS); E-HITS (an extended version of the HITS, with an additional item assessing sexual abuse); Parent Screening Questionnaire; Partner Violence Screen (PVS); and Woman Abuse Screening Tool (WAST). 3 validated reference standards were used: Composite Abuse Scale; CTS or CTS-2; and Index of Spousal Abuse.

2. Systematic review [84]
3. Systematic review [84]

References

[84] Curry SJ, Krist AH, Owens DK, Barry MJ, Caughey AB, Davidson KW, Doubeni CA, Epling JW, Grossman DC, Kemper AR, Kubik M, Kurth A, Landefeld CS, Mangione CM, Silverstein M, Simon MA, Tseng C-W, Wong JB : Screening for Intimate Partner Violence, Elder Abuse, and Abuse of Vulnerable Adults: US Preventive Services Task Force Final Recommendation Statement. JAMA 2018;320(16):1678-1687

16.3 – Screening for past-year IPV vs. validated reference standard

PICO

Population: Women aged 18 years or older
Intervention: Screening for past-year IPV
Comparator: Validated reference standard

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Validated reference standard	Screening for past-year IPV		
Sensitivity[1]	Based on data from 53 participants in 1 studies[2]	Across 2 screeners (PVS, HITS), sensitivity for detecting past-year IPV ranged from 30% to 71%.		Low	Sensitivity for detecting past-year IPV ranged from 30% to 71%.
Specificity[3]	Based on data from 53 participants in 1 studies[4]	Across 2 screeners (PVS, HITS), specificity for detecting past-year IPV ranged from 83% to 88%.		Low	Specificity for detecting past-year IPV ranged from 83% to 98%.

Footnotes

1. 2 tools for detecting past-year IPV were assessed: Partner Violence Screen (PVS); Hurt, Insulted, Threaten, Scream (HITS).
2. Systematic review [84]
3. 2 tools for detecting past-year IPV were assessed: Partner Violence Screen (PVS); Hurt, Insulted, Threaten, Scream (HITS).
4. Systematic review [84]

References

[84] Curry SJ, Krist AH, Owens DK, Barry MJ, Caughey AB, Davidson KW, Doubeni CA, Epling JW, Grossman DC, Kemper AR, Kubik M, Kurth A, Landefeld CS, Mangione CM, Silverstein M, Simon MA, Tseng C-W, Wong JB : Screening for Intimate Partner Violence, Elder Abuse, and Abuse of Vulnerable Adults: US Preventive Services Task Force Final Recommendation Statement. JAMA 2018;320(16):1678-1687

16.4 – Screening for current or ongoing IPV vs. validated reference standard

PICO
Population: Women aged 18 years or older
Intervention: Screening for current or ongoing IPV
Comparator: Validated reference standard

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Validated reference standard	Screening for current or ongoing IPV		
Sensitivity	Based on data from 1795 participants in 5 studies[1]	Across 5 screeners (OAS, AAS, OVAT), sensitivity for detecting current abuse ranged from 46% to 94%.		Low	Sensitivity for detecting current abuse ranged from 46% to 94%.
Specificity	Based on data from 1795 participants in 5 studies[2]	Across 5 screeners (OAS, AAS, OVAT), specificity for detecting current abuse ranged from 38% to 95%.		Low	Specificity for detecting current abuse ranged from 38% to 95%.

Footnotes
1. Systematic review [84]
2. Systematic review [84]

References
[84] Curry SJ, Krist AH, Owens DK, Barry MJ, Caughey AB, Davidson KW, Doubeni CA, Epling JW, Grossman DC, Kemper AR, Kubik M, Kurth A, Landefeld CS, Mangione CM, Silverstein M, Simon MA, Tseng C-W, Wong JB : Screening for Intimate Partner Violence, Elder Abuse, and Abuse of Vulnerable Adults: US Preventive Services Task Force Final Recommendation Statement. JAMA 2018;320(16):1678-1687

16.5 – Equity outcomes: availability of IPV screening services by geodemographic factors

PICO
Population: Adults aged 18 years or older
Intervention: Equity outcomes - Availability of IPV screening services by geodemographic factors
Comparator: No comparator

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence** (Quality of evidence)	**Plain language summary**
		Comparator	Equity outcomes - IPV screening by geodemographic factors		
Availability of IPV screening services and percentage of White non-Hispanic residents[1]	2	Percentage of White non-Hispanic residents was positively associated with normalized comprehensiveness score (β = .58, z = 2.22, p = .026).		-	Neighbourhoods with a higher percentage of White residents had higher availability of comprehensive IPV screening services.
Availability of IPV screening services and percentage of Hispanic residents[3]	4	Percentage of Hispanic residents was not associated with normalized comprehensiveness score.		-	Percentage of Hispanic residents was not associated with availability of comprehensive IPV screening services.
Availability of IPV screening services and percentage of Black non-Hispanic residents[5]	6	Percentage of Black non-Hispanic residents was negatively associated with normalized comprehensiveness score (β = −.35, z = −1.90, p = .057).		-	Neighbourhoods with a higher percentage of Black residents had lower availability of comprehensive IPV screening services.
Availability of IPV screening services and median age of residents[7]	8	Median age of residents was negatively associated with normalized comprehensiveness score (β = −.03, z = −2.89, p = .004).		-	Neighbourhoods with older residents had lower availability of comprehensive IPV screening services.
Availability of IPV screening services and median gross rent of residents[9]	10	Median gross rent of residents was negatively associated with normalized comprehensiveness score (β = −.00, z = −2.77, p = .006).		-	Neighbourhoods with higher rent prices had lower availability of comprehensive IPV screening services.

Availability of IPV screening services and percentage of residents receiving Social Security benefits[11]	[12]	Receiving Social Security benefits was positively associated with normalized comprehensiveness score (β = .01, z = 2.24, p = .025).	-	Neighbourhoods with more residents receiving Social Security benefits had lower availability of comprehensive IPV screening services.

Footnotes

1. We operationalize IPV screening availability via a census tract-level comprehensiveness score for IPV screening services that is normalized by total population.
2. Primary study Supporting references [85].
3. We operationalize IPV screening availability via a census tract-level comprehensiveness score for IPV screening services that is normalized by total population.
4. Primary study Supporting references [85].
5. We operationalize IPV screening availability via a census tract-level comprehensiveness score for IPV screening services that is normalized by total population.
6. Primary study Supporting references [85].
7. We operationalize IPV screening availability via a census tract-level comprehensiveness score for IPV screening services that is normalized by total population.
8. Primary study Supporting references [85].
9. We operationalize IPV screening availability via a census tract-level comprehensiveness score for IPV screening services that is normalized by total population.
10. Primary study Supporting references [85].
11. We operationalize IPV screening availability via a census tract-level comprehensiveness score for IPV screening services that is normalized by total population.
12. Primary study Supporting references [85].

References

[85] Stoler J, Verity J, Williams JR : Geodemographic Disparities in Availability of Comprehensive Intimate Partner Violence Screening Services in Miami-Dade County, Florida. Journal of interpersonal violence 2020;35(7-8):1654-1670

16.6 – Equity outcomes: availability of IPV screening services in rural hospitals vs. urban hospitals

PICO

Population: Rural and urban emergency departments
Intervention: Equity outcomes - Availability of IPV screening services in rural hospitals
Comparator: urban hospitals

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		urban hospitals	Equity outcomes - IPV screening		

			services in rural hospitals		
Official IPV screening policy	[1]	A smaller proportion of rural emergency departments, compared to urban emergency departments, reported official IPV screening policies (74% vs. 100%, p=0.01).		-	A smaller proportion of rural emergency departments, compared to urban emergency departments, reported official IPV screening policies.
Regular IPV training for clinicians	[2]	A smaller proportion of rural emergency departments, compared to urban emergency departments, reported clinician education on IPV (38% vs. 70%, p=0.02).		-	A smaller proportion of rural emergency departments, compared to urban emergency departments, reported clinician education on IPV.
Standardized IPV screening instruments	[3]	A smaller proportion of rural emergency departments, compared to urban emergency departments, reported standardized IPV screening instruments (21% vs. 55%, p=0.01).		-	A smaller proportion of rural emergency departments, compared to urban emergency departments, reported standardized IPV screening instruments.
On-site IPV advocacy	[4]	A smaller proportion of rural emergency departments, compared to urban emergency departments, reported on-site IPV advocacy (44% vs. 95%, p<0.001).		-	A smaller proportion of rural emergency departments, compared to urban emergency departments, reported on-site IPV advocacy.

Footnotes

1. Primary study Supporting references [87].
2. Primary study Supporting references [87].
3. Primary study Supporting references [87].
4. Primary study Supporting references [87].

References

[87] Choo EK, Newgard CD, Lowe RA, Hall MK, McConnell KJ : Rural-urban disparities in emergency department intimate partner violence resources. The western journal of emergency medicine 2011;12(2):178-83

16.7 – Equity outcomes: IPV burden in transgender population

PICO

Population: Transgender and cisgender adults
Intervention: Equity outcomes - IPV burden in transgender population

Comparator: cisgender population

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		cisgender population	Equity outcomes - IPV burden in transgender population		
Prevalence of any IPV	Rate ratio: 1.66 (CI 95% 1.36 - 2.03) Based on data from 280422 participants in 20 studies[1]	-		-	Transgender participants were 1.66 times more likely to experience any IPV than were cisgender participants.
Prevalence of physical IPV	Rate ratio: 2.19 (CI 95% 1.66 - 2.88) Based on data from 391021 participants in 21 studies[2]	-		-	Transgender participants were more than twice as likely to experience physical IPV.
Prevalence of sexual IPV	Rate ratio: 2.46 (CI 95% 1.64 - 3.69) Based on data from 180149 participants in 15 studies[3]	-		-	Transgender participants were more than twice as likely to experience sexual IPV.

Footnotes

1. Systematic review [86].
2. Systematic review [86].
3. Systematic review [86].

References

[86] Peitzmeier SM, Malik M, Kattari SK, Marrow E, Stephenson R, Agénor M, Reisner SL : Intimate Partner Violence in Transgender Populations: Systematic Review and Meta-analysis of Prevalence and Correlates. American journal of public health 2020;110(9):e1-e14

16.8 – Equity outcomes: police-reported IPV by race/ethnicity

PICO

Population: Women aged 18 to 49 years
Intervention: Equity outcomes - Police-reported IPV in ethnic minority women
Comparator: white women

Summary of findings table

Outcome		**Absolute effect estimates**		

Timeframe	**Study results and measurements**	white women	Equity outcomes - Police-reported IPV in ethnic minority women	**Certainty of the Evidence**	**Plain language summary**
Rates of police-reported IPV (Black vs white women)	Rate ratio: 3.03 (CI 95% 2.79 - 3.29) Based on data from 21231 participants in 1 studies[1]	**7.9** per 1000	**26.9** per 1000	-	Rates of police-reported IPV were three times higher among Black women compared with white women.
		Difference: **17.0 more per 1000** (CI 95% 18.4 more - 19.6 more)			
Rates of police-reported IPV (Hispanic vs white women)	Rate ratio: 2.19 (CI 95% 2.02 - 2.39) Based on data from 22511 participants in 1 studies[2]	**7.9** per 1000	**17.1** per 1000	-	Rates of police-reported IPV were twice as high among Hispanic women compared with white women.
		Difference: **9.2 more per 1000** (CI 95% 9.0 more - 9.5 more)			

Footnotes

1. Primary study [88] **.**
2. Primary study [88] **.**

References

[88] Lipsky S, Caetano R, Roy-Byrne P : Racial and ethnic disparities in police-reported intimate partner violence and risk of hospitalization among women. Women's health issues : official publication of the Jacobs Institute of Women's Health 19(2):109-18

17. Primary Care Access

Evidence to decision

Benefits and harms	Substantial net benefits of the recommended alternative
Higher primary care physicians-to-population ratios are associated with relatively greater effects on various aspects of health, including mortality and life expectancy, and these outcomes are usually more pronounced in socially disadvantaged groups. Community health centers are successful in reducing and eliminating health access disparities in disadvantaged groups.	

Certainty of the Evidence	Moderate

Values and preferences	No substantial variability expected

Resources and other considerations	No important issues with the recommended alternative
An adequate supply of primary care providers has been shown to reduce disparities in health across racial and socioeconomic groups. Being able to choose a primary care provider, including a nurse practitioner, is especially important for people experiencing disadvantages.	

17.1 – Attached population vs. unattached population

PICO
Population: Ontario residents aged 16 years or older
Intervention: Attached population (has family doctor)
Comparator: Unattached population (no family doctor)

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Unattached population (no family doctor)	Attached population (has family doctor)		
Overall care	Risk difference: 0.34 (CI 95% 0.31 - 0.37) Based on data from 16560 participants in 1 studies[1]	-		-	Those with a family doctor were more likely to report having received care in the past year than those without a family doctor (84.1% vs 50.1%)

Routine care	Risk difference: 0.47 (CI 95% 0.45 - 0.5) Based on data from 16560 participants in 1 studies[2]	-	-	Those with a family doctor were almost three times more likely to report having received routine care such as monitoring of health issues or check-ups than those without a family doctor (73.1% vs 25.9%)
Immediate care	Risk difference: 0.1 (CI 95% 0.08 - 0.13) Based on data from 16560 participants in 1 studies[3]	-	-	Those with a family doctor were more likely to report having received immediate care for an urgent problem than those without a family doctor (36.0% vs 25.7%)
Use of walk-in clinic	Risk difference: 0.23 (CI 95% 0.2 - 0.26) Based on data from 16560 participants in 1 studies[4]	-	-	Those with a family doctor were less likely to report the use of walk-in clinics than those without a family doctor (24.6% vs 47.9%)
Emergency department use	Risk difference: 0.0 (CI 95% -0.02 - 0.03) Based on data from 16560 participants in 1 studies[5]	-	-	Use of emergency departments was similar between the two groups (20.5% vs 20.8%)
Male gender	Risk difference: 0.11 (CI 95% 0.08 - 0.13) Based on data from 16560 participants in 1 studies[6]	-	-	Those without a family doctor were more likely to be male (58.7% vs 41.3%)
Young age	Risk difference: 0.02 (CI 95% 0.0 - 0.05) Based on data from 16560 participants in 1 studies[7]	-	-	Those without a family doctor were more likely to be younger in age (17.2% vs 14.9%)
Recent immigrants	Risk difference: 0.03 (CI 95% 0.02 - 0.05) Based on data from 16560 participants in 1 studies[8]	-	-	Those without a family doctor were more likely to be recent immigrants (8.6% vs 5.6%)

Footnotes

1. Primary study [125] .
2. Primary study [125] .
3. Primary study [125] .
4. Primary study [125] .
5. Primary study [125] .
6. Primary study [125] .
7. Primary study [125] .
8. Primary study [125] .

References

[125] Hay C, Pacey M, Bains N, Ardal S : Understanding the Unattached Population in Ontario: Evidence from the Primary Care Access Survey (PCAS). Healthcare policy = Politiques de sante 2010;6(2):33-47

17.2 – High continuity of primary care vs. Low continuity of primary care

PICO

Population: Adults 18 years or older
Intervention: High continuity of primary care
Comparator: Low continuity of primary care

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Low continuity of care	High continuity of care		
Mortality	34 studies[1,2]	Of the 34 studies measuring mortality, 27 studies showed that greater continuity of care was significantly associated with lower mortality.		-	Continuity of primary care was associated with lower mortality.
Mental health-related hospitalizations	Based on data from 8409 participants in 1 study[3]	Compared with continuous care, patients with discontinuous (adjusted rate ratio 1.20 [CI 95% 1.10 - 1.30]) and no primary care (adjusted rate ratio 1.30 [CI 95% 1.08-1.56]) had an increased rate of mental health-related hospitalization in young adulthood .		-	Continuity of primary care was associated with fewer hospitalizations.

Emergency department visits	Hazard ratio: 0.90 (CI 95% 0.89 - 0.92) Based on data from 178,686 participants in 1 studies[4]	-	-	High continuity of primary care was associated with a reduced risk of emergency department visits.
Hospital admissions	Hazard ratio: 0.94 (CI 95% 0.92 - 0.96) Based on data from 178,686 participants in 1 studies[4]	-	-	High continuity of primary care was associated with a reduced risk of hospital admissions.

Footnotes

1. Systematic review [133].
2. Systematic review [134].
3. Primary study [135].
4. Primary study [136].

References

[133] Baker R, Freeman GK, Haggerty JL et al : Primary medical care continuity and patient mortality: a systematic review. The British journal of general practice : the journal of the Royal College of General Practitioners 70(698):e600-e611
[134] Pereira Gray DJ, Sidaway-Lee K, White E et al : Continuity of care with doctors-a matter of life and death? A systematic review of continuity of care and mortality. BMJ open 8(6):e021161
[135] Toulany A, Stukel TA, Kurdyak P et al : Association of Primary Care Continuity With Outcomes Following Transition to Adult Care for Adolescents With Severe Mental Illness. JAMA network open 2(8):e198415
[136] Jones A, Bronskill SE, Seow H et al : Associations between continuity of primary and specialty physician care and use of hospital-based care among community-dwelling older adults with complex care needs. PloS one 15(6):e0234205

17.3 – Equity outcomes: primary care, health outcomes, and sociodemographic characteristics

PICO

Population: U.S. residents aged 18 years or older
Intervention: Equity outcomes - Primary care, health outcomes, and sociodemographics
Comparator: No comparator

Summary of findings table

Outcome		Absolute effect estimates		

Timeframe	**Study results and measurements**	Comparator	Equity outcomes - Primary care, health, and sociodemogr ic	**Certainty of the Evidence**	**Plain language summary**
Total mortality and primary care	[1]	-		-	Higher primary care physician-to-population ratio was significantly associated with lower total mortality, even after controlling for the adverse impact of income inequality and smoking history (t = -2.45; p < 0.05)
Stroke mortality and primary care	[2]	-		-	Higher primary care physician-to-population ratio was significantly associated with lower stroke mortality, even after controlling for the adverse impact of income inequality and smoking history (t = -2.03; p < 0.05)
Postneonatal mortality and primary care	[3]	-		-	Higher primary care physician-to-population ratio was significantly associated with lower postneonatal mortality, even after controlling for the adverse impact of income inequality and smoking history (t = -2.77; p < 0.001)
Life expectancy and primary care	[4]	-		-	Higher primary care physician-to-population ratio was significantly associated with longer life expectancy, even after controlling for the adverse impact of income inequality and smoking history (t = 2.53; p < 0.01)

Self-perceived health and primary care	Odds ratio: 1.05 (CI 95% 1.03 - 1.07) [5]	-	-	Individuals living in states with a higher primary care physician-to-population ratio were more likely to report good health than those living in states with a lower such ratio (p<0.01)
Self-perceived health, income inequality, and primary care	Odds ratio: 1.02 (CI 95% 1.01 - 1.04) [6]	-	-	Individuals living in states with a higher primary care physician-to-population ratio were more likely to report good health than those living in states with a lower such ratio, even after adjusting for the effect of income inequality on health status (p<0.01)
Low birth weight and primary care	[7]	-	-	Primary care was significantly associated with lower low birth weight; an increase of one primary care doctor per 10,000 population was associated with a 3.2% reduction in low birth weight (p<0.0001)
Infant mortality and primary care	[8]	-	-	Primary care was significantly associated with lower infant mortality; an increase of one primary care doctor per 10,000 population was associated with a 2.5% reduction in infant mortality (p<0.0001)

Total mortality and primary care (Black vs White race)	[9]	-	-	The association between a greater supply of primary care physicians and lower total mortality was found to be 2.5 times greater in the African American population (-3.97 deaths per 10,000 population) than in the White population (-1.58 deaths per 10,000 population)

Footnotes

5. Systematic review [126].
6. Systematic review [126].
7. Systematic review [126].
8. Systematic review [126].
9. Systematic review [126].
10. Systematic review [126].
11. Systematic review [126].
12. Systematic review [126].
13. Systematic review [126].

References

[126] Starfield B, Shi L, Macinko J : Contribution of primary care to health systems and health. The Milbank quarterly 2005;83(3):457-502

17.4 – Low primary care physician-to-population ratio vs. high primary care physician-to-population ratio

PICO

Population: U.S. residents aged 18 years or older
Intervention: Low primary care physician-to-population ratio (below national 75th percentile)
Comparator: High primary care physician-to-population ratio (above national 75th percentile)

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		High primary care physician-to-population ratio	Low primary care physician-to-population ratio		
All-cause mortality	Measured by: Scale: - Lower better	Mean	Mean	-	Greater primary care resources were associated with lower rates of all-cause mortality, even after
		Difference: **MD 23.80 higher**			

	Based on data from 3075 participants in 1 studies[1]	(CI 95% 10.76 higher - null lower)			controlling for the adverse impact of income inequality
Heart disease mortality	Measured by: Scale: - Lower better Based on data from 3075 participants in 1 studies[2]	Mean	Mean	-	Greater primary care resources were associated with lower rates of heart disease mortality, even after controlling for the adverse impact of income inequality
		Difference: **MD 19.96 higher** (CI 95% 6.19 higher - null lower)			
Cancer mortality	Measured by: Scale: - Lower better Based on data from 3075 participants in 1 studies[3]	Mean	Mean	-	Greater primary care resources were associated with lower rates of cancer mortality, even after controlling for the adverse impact of income inequality
		Difference: **MD 5.29 higher** (CI 95% 2.63 higher - null lower)			
All-cause mortality (urban counties)	Measured by: Scale: - Lower better Based on data from 816 participants in 1 studies[4]	Mean	Mean	-	Urban counties with low primary care (less than 75th percentile) had significantly lower levels of all-cause mortality than counties with high primary care
		Difference: **MD 53.29 lower** (CI 95% 14.2 higher - null higher)			
Heart disease mortality (urban counties)	Measured by: Scale: - Lower better Based on data from 816 participants in 1 studies[5]	Mean	Mean	-	Urban counties with low primary care (less than 75th percentile) had significantly lower levels of heart disease mortality than counties with high primary care
		Difference: **MD 23.05 lower** (CI 95% 7.67 higher - null higher)			
Cancer mortality (urban counties)	Measured by: Scale: - Lower better Based on data from 816 participants in 1 studies[6]	Mean	Mean	-	Urban counties with low primary care (less than 75th percentile) had significantly lower levels of cancer mortality than counties with high primary care
		Difference: **MD 9.27 lower** (CI 95% 3.64 higher - null lower)			
All-cause mortality (rural counties)	Measured by: Scale: - Lower better	Mean	Mean	-	Rural counties with low primary care (less than 75th percentile) had significantly higher levels of all-
		Difference: **MD 28.92 higher**			

	Based on data from 2259 participants in 1 studies[7]	(CI 95% 13.39 higher - null higher)			cause mortality than counties with high primary care
Heart disease mortality (rural counties)	Measured by: Scale: - Lower better Based on data from 2259 participants in 1 studies[8]	Mean	Mean	-	Rural counties with low primary care (less than 75th percentile) had significantly higher levels of heart disease mortality than counties with high primary care
		Difference: **MD 23.53 higher** (CI 95% 7.84 higher - null higher)			
Cancer mortality (rural counties)	Measured by: Scale: - Lower better Based on data from 2259 participants in 1 studies[9]	Mean	Mean	-	Rural counties with low primary care (less than 75th percentile) had significantly higher levels of heart disease mortality than counties with high primary care
		Difference: **MD 6.87 higher** (CI 95% 3.35 higher - null higher)			

Footnotes

1. Systematic review [126].
2. Systematic review [126].
3. Systematic review [126].
4. Systematic review [126].
5. Systematic review [126].
6. Systematic review [126].
7. Systematic review [126].
8. Systematic review [126].
9. Systematic review [126].

References

[126] Starfield B, Shi L, Macinko J : Contribution of primary care to health systems and health. The Milbank quarterly 2005;83(3):457-502

17.5 – Good primary care experience vs. poor primary care experience

PICO

Population: U.S. residents aged 18 years and older
Intervention: Good primary-care experience
Comparator: Poor primary-care experience

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		Poor primary-care experience	Good primary-care experience		

Self-rated health	Odds ratio: 1.06 (CI 95% 1.05 - 1.08) Based on data from 26679 participants in 1 studies[1]	-	-	Good primary-care experience was significantly and positively associated with good health, even after controlling for the adverse impact of income inequality on health
Self-rated depression	Odds ratio: 0.94 (CI 95% 0.93 - 0.96) Based on data from 26679 participants in 1 studies[2]	-	-	Good primary-care experience was significantly and inversely associated with feeling depressed, even after controlling for the adverse impact of income inequality on health
Primary care physician-to-population ratio and self-rated health	Odds ratio: 1.03 (CI 95% 1.0 - 1.05) Based on data from 26679 participants in 1 studies[3]	-	-	Primary care physician-to-population ratio was significantly and positively associated with good health, even after controlling for the adverse impact of income inequality on health
Primary care physician-to-population ratio and self-rated depression	Odds ratio: 0.98 (CI 95% 0.96 - 1.0) Based on data from 26679 participants in 1 studies[4]	-	-	Primary-care physician-to-population ratio was significantly and inversely associated with feeling depressed, even after controlling for the adverse impact of income inequality on health

Footnotes

1. Systematic review [126].
2. Systematic review [126].
3. Systematic review [126].
4. Systematic review [126].

References

[126] Starfield B, Shi L, Macinko J : Contribution of primary care to health systems and health. The Milbank quarterly 2005;83(3):457-502

17.6 – Patients at federally-funded health centers vs. general population

PICO

Population: U.S. residents aged 18 years and older
Intervention: Patients at federally-funded health centers
Comparator: General population

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		General population	Patients at federally-funded health centers		
Composition of health center patients	[1]	Health center patients are more likely to be uninsured (41% uninsured; 33% medicaid; 7% medicare; 19% other), experiencing poverty (66% at or below the poverty level; 20% between 100 percent to 200 percent of poverty; 14% below 200 percent of poverty), and from racial/ethnic minority groups (34% Hispanic; 26% Black; 4% Asian/other; 36% White).		-	Health center patients are more likely to be uninsured, poor, and from racial/ethnic minority groups
Insurance status disparities in access to routine care	[2]	75% of the country's uninsured reported having a usual source of care. 99% of health center uninsured reported having a usual source of care.		-	Federally-funded health centers reduced insurance status disparities in access to primary care
Racial/ethnic disparities in access to preventive screening	[3]	Health center screening rates were comparable between racialized vs white populations (79% vs 82% for breast exam; 64% vs 57% for mammogram; 84% vs 82% for pap smear; 48% vs. 47% for testicular exam; 46% vs. 44% for cholesterol screening).		-	Federally-funded health centers reduced racial/ethnic disparities in access to important preventive screening procedures
Income disparities in access to preventive screening	[4]	Across all racial/ethnic groups, mammography rates for low-income women were higher among health center patients compared with those receiving care elsewhere (76% vs. 48% for Hispanic women; 61% vs. 49% for non-Hispanic Black women; 58% vs. 44% for non-Hispanic White women).		-	Federally-funded health centers reduced income disparities in access to important preventive screening procedures

Insurance status disparities in access to preventive screening	[5]	Health center uninsured adults were more likely to receive a pap smear (88.2% vs. 32%), mammography (55.9% vs. 19%), and a breast exam (79% vs 38%) compared with uninsured adults in the general population. Health center uninsured adults were more likely to be counseled about diet and eating habits (54% vs. 43%), physical activity (57% vs. 48.5%), smoking (75.4% vs. 63.9%), drinking (67.8% vs. 52.3%), drug use (55.2% vs. 38.7%), and sexually transmitted diseases (53.7% vs. 36.2%) compared with uninsured adults in the general population.	-	Federally-funded health centers reduced insurance status disparities in access to important preventive screening procedures
Insurance status disparities in access to ambulatory care	[6]	Medicaid beneficiaries who seek care at health centers were 22% less likely to be hospitalized for potentially avoidable conditions than beneficiaries who obtain care elsewhere. Medicaid beneficiaries who seek care at health centers were 16% more likely to have outpatient visits for such conditions than beneficiaries who obtain care elsewhere.	-	Federally-funded health centers reduced insurance status disparities in access to appropriate ambulatory care
Racial/ethnic disparities in low birth weight	[7]	Disparities in low-birth-weight percentages between the majority white and African American infants are fewer in infants of mothers receiving care in primary care–oriented community health centers, compared with the population as a whole.	-	Federally-funded health centers reduced low birth weight disparities for African American infants.
Patients returning for a new problem	[8]	A greater percentage of health center visits were made by known patients returning for a new problem, compared with generalist office-based practice and hospital-based clinic visits (OR 1.77 for health centers; OR 1.0 for office-based practices; OR 0.70 for hospital-based primary care clinics).	-	A greater percentage of health center visits were made by known patients returning for a new problem

Patients returning for an old problem	[9]	A greater percentage of generalist office-based practice and hospital-based clinic visits were made by known patients returning for old problems, compared with health center visits.	-	A smaller percentage of health center visits were made by known patients returning for an old problem
Chronic disease prevalence	[10]	Health center patients are significantly more likely to have hypertension (50% vs. 34%) and diabetes compared with low-income adults in the general population, even after controlling for risk factors such as obesity, race/ethnicity, and age.	-	Health center patients are significantly more likely to have hypertension and diabetes compared with the general population
Chronic disease management	[11]	Health center patients with hypertension report at a rate of 90% that their blood pressure is under control, more than three times the rate reported in the general population. Health center patients with diabetes report that their glycohemoglobin rates are tested on schedule 43% of the time, more than twice the rate reported in the general population.	-	Federally-funded health centers improve chronic disease management and health outcomes in disadvantaged populations
Self-reported health status	[12]	Almost 50% of health center patients reported having fair or poor health status, compared with 33% in the general population.	-	A greater percentage of health center patients in all age groups reported having fair or poor health status compared with the general population

Footnotes

1. Systematic review [126]
2. Systematic review [126]
3. Systematic review [126]
4. Systematic review [126]
5. Systematic review [126]
6. Systematic review [126]
7. Systematic review [126]
8. Systematic review [126]
9. Systematic review [126]
10. Systematic review [126]
11. Systematic review [126]

12. Systematic review [126]

References

[126] Starfield B, Shi L, Macinko J : Contribution of primary care to health systems and health. The Milbank quarterly 2005;83(3):457-502

17.7 – Equity outcomes: income disparities in primary care experiences

PICO

Population: Patients in family medicine practice
Intervention: Equity outcomes - Income disparities in primary care experiences
Comparator: No comparator

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		No comparator	Equity outcomes - Income disparities in primary care experiences		
Timely access when sick (low vs high income)	Odds ratio: 0.67 (CI 95% 0.47 - 0.95) Based on data from 1823 participants in 1 studies[1]	-		-	Patients in the lowest income neighbourhoods were significantly less likely to report timely access to care services when sick than those in the highest income neighbourhoods
Access after hours (low vs high income)	Odds ratio: 0.86 (CI 95% 0.49 - 1.52) Based on data from 1823 participants in 1 studies[2]	-		-	There was no significant difference in access to care services after hours between the lowest and highest income neighbourhoods
Opportunity to ask questions (low vs high income)	Odds ratio: 0.53 (CI 95% 0.32 - 0.87) Based on data from 1823 participants in 1 studies[3]	-		-	Patients in the lowest income neighbourhoods were significantly less likely to report the opportunity to ask questions during primary care visits than those in the highest income neighbourhoods

Enough time with provider (low vs high income)	Odds ratio: 0.56 (CI 95% 0.34 - 0.92) Based on data from 1823 participants in 1 studies[4]	-	-	Patients in the lowest income neighbourhoods were significantly less likely to report enough time with their care provider than those in the highest income neighbourhoods
Involved in care decisions (low vs high income)	Odds ratio: 0.58 (CI 95% 0.34 - 0.99) Based on data from 1823 participants in 1 studies[5]	-	-	Patients in the lowest income neighbourhoods were significantly less likely to report involvement in care decisions than those in the highest income neighbourhoods
Timely access when sick (poor/fair vs excellent health)	Odds ratio: 0.54 (CI 95% 0.35 - 0.84) Based on data from 1823 participants in 1 studies[6]	-	-	Patients with poor or fair self-rated health were significantly less likely to report timely access to care services when sick than those with excellent self-rated health
Access after hours (poor/fair vs excellent health)	Odds ratio: 0.11 (CI 95% 0.04 - 0.28) Based on data from 1823 participants in 1 studies[7]	-	-	Patients with poor or fair self-rated health were significantly less likely to report access to care services after hours than those with excellent self-rated health
Opportunity to ask questions (poor/fair vs excellent health)	Odds ratio: 0.22 (CI 95% 0.12 - 0.4) Based on data from 1823 participants in 1 studies[8]	-	-	Patients with poor or fair self-rated health were significantly less likely to report the opportunity to ask questions during primary care visits than those with excellent self-rated health

Enough time with provider (poor/fair vs excellent health)	Odds ratio: 0.16 (CI 95% 0.08 - 0.32) Based on data from 1823 participants in 1 studies[9]	-	-	Patients with poor or fair self-rated health were significantly less likely to report enough time with their care provider than those with excellent self-rated health
Involved in care decisions (poor/fair vs excellent health)	Odds ratio: 0.2 (CI 95% 0.1 - 0.4) Based on data from 1823 participants in 1 studies[10]	-	-	Patients with poor or fair self-rated health were significantly less likely to report involvement in care decisions than those with excellent self-rated health

Footnotes

1. Primary study [127] **.**
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17.8 – Equity outcomes: racial/ethnic disparities in primary care physician specialist referrals

PICO

Population: Medicare beneficiaries
Intervention: Equity outcomes - Racial/ethnic disparities in primary care physician specialist referrals
Comparator: No comparator

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		No comparator	Equity outcomes - Racial/ethnic disparities in PC referrals		

Cardiologist referrals (Black vs White race)	Measured by: Scale: - High better Based on data from 967150 participants in 1 studies[1]	**17.5** Mean	**8.8** Mean	-	For cardiology referrals, primary care physicians shared Black patients with fewer specialists relative to White patients (45% vs 87%)
		Difference: **MD 8.7 lower**			
Pulmonologist referrals (Black vs White race)	Measured by: Scale: - High better Based on data from 967150 participants in 1 studies[2]	**7.2** Mean	**4.4** Mean	-	For pulmonary referrals, primary care physicians shared Black patients with fewer specialists relative to White patients (56% vs 89%)
		Difference: **MD 2.8 lower**			
Gastroenterologist referrals (Black vs White race)	Measured by: Scale: - High better Based on data from 967150 participants in 1 studies[3]	**7** Mean	**4** Mean	-	For gastroenterologist referrals, primary care physicians shared Black patients with fewer specialists relative to White patients (51% vs 89%)
		Difference: **MD 3 lower**			
Orthopedist referrals (Black vs White race)	Measured by: Scale: - High better Based on data from 50 participants in 1 studies[4]	**7.8** Mean	**3.3** Mean	-	For orthopedic referrals, primary care physicians shared Black patients with fewer specialists relative to White patients (39% vs 91%)
		Difference: **MD 4.5 lower**			
General surgeon referrals (Black vs White race)	Measured by: Scale: - High better Based on data from 967150 participants in 1 studies[5]	**5.7** Mean	**3.7** Mean	-	For general surgery referrals, primary care physicians shared Black patients with fewer specialists relative to White patients (55% vs 85%)
		Difference: **MD 2 lower**			
Neurologist referrals (Black vs White race)	Measured by: Scale: - High better Based on data from 967150 participants in 1 studies[6]	**6.9** Mean	**3.9** Mean	-	For neurology referrals, primary care physicians shared Black patients with fewer specialists relative to White patients (51% vs 87%)
		Difference: **MD 3 lower**			

Footnotes

1. Primary study [128] **.**
2. Primary study [128] **.**
3. Primary study [128] **.**
4. Primary study [128] **.**
5. Primary study [128] **.**
6. Primary study [128] **.**

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17.9 – Equity outcomes: racial/ethnic, age, and gender disparities in telemedicine use

PICO

Population: Patients aged 65 years or older
Intervention: Equity outcomes - Racial/ethnic, age, and gender disparities in telemedicine use
Comparator: No comparator

Summary of findings table

Outcome Timeframe	**Study results and measurements**	**Absolute effect estimates**		**Certainty of the Evidence**	**Plain language summary**
		No comparator	Equity outcomes - Disparities in telemedicine use		
Telemedicine use (Black vs White race)	Odds ratio: 1.3 (CI 95% 1.14 - 1.47) Based on data from 17103 participants in 1 studies[1]	-		-	Black patients had higher odds of using telemedicine than White patients
Telemedicine use (Hispanic vs White race)	Odds ratio: 0.63 (CI 95% 0.42 - 0.92) Based on data from 17103 participants in 1 studies[2]	-		-	Hispanic patients had lower odds of using telemedicine than White patients
Telemedicine use (age ≥85 vs 65–74)	Odds ratio: 1.18 (CI 95% 1.0 - 1.41) Based on data from 17103 participants in 1 studies[3]	-		-	Patients aged 85 years or older had higher odds of using telemedicine than those aged
Telemedicine use (female vs male)	Odds ratio: 1.15 (CI 95% 1.06 - 1.24) Based on data from 17103 participants in 1 studies[4]	-		-	Female patients had higher odds of using telemedicine than male patients

ACSC hospitalization (telemedicine vs in-person care)	Odds ratio: 0.78 (CI 95% 0.61 - 1.0) Based on data from 17103 participants in 1 studies[5]	-	-	Patients who used telemedicine had lower odds of being hospitalized for ambulatory care sensitive conditions compared to those receiving in-person primary care
ACSC hospitalization from telemedicine (Black vs White race)	Odds ratio: 1.43 (CI 95% 1.02 - 2.01) Based on data from 17103 participants in 1 studies[6]	-	-	Among patients who used telemedicine, Black patients had higher odds of being hospitalized for ambulatory care sensitive conditions compared to White patients
ACSC hospitalization from telemedicine (age ≥85 vs 65–74)	Odds ratio: 1.6 (CI 95% 1.03 - 2.47) Based on data from 17103 participants in 1 studies[7]	-	-	Among patients who used telemedicine, those aged 85 or older had higher odds of of being hospitalized for ambulatory care sensitive conditions compared to patients aged 65 to 74

Footnotes

1. Primary study [129] **.**
2. Primary study [129] **.**
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6. Primary study [129] **.**
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