

Supplemental Online Content

Meenan RT, Lacey C, Buist DSM, et al. An economic evaluation of human Papillomavirus self-testing options for cervical cancer screening. *JAMA Netw Open*. 2025;8(10):e2534960. doi:10.1001/jamanetworkopen.2025.34960

eTable 1. Budget Impact Analysis For KPWA/Wellness Cost Basis (Adherent Screening History)

eTable 2. Budget Impact Analysis For KPWA/Wellness Cost Basis (Overdue Screening History)

eTable 3. Budget Impact Analysis For KPWA/Wellness Cost Basis (Unknown Screening History)

eFigure 1. Cost-Effectiveness Acceptability Curves For KPWA/Wellness Cost Basis (Adherent Screening History)

eFigure 2. Cost-Effectiveness Acceptability Curves For KPWA/Wellness Cost Basis (Overdue Screening History)

eFigure 3. Cost-Effectiveness Acceptability Curves For KPWA/Wellness Cost Basis (Unknown Screening History)

This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Budget Impact Analysis For KPWA/Wellness Cost Basis (Adherent Screening History)

Sample	Proportion	Year 1		Year 2		Year 3		Year 4	
		Population	Annual	Population	Annual	Population	Annual	Population	Annual
		N	Cost	N	Cost	N	Cost	N	Cost
Beginning mail population ^b		5000	\$31,150	1839	\$11,460	639	\$3,980	746	\$4,648
No screening	0.380	-1899		-699		-243		-283	
In-clinic screening	0.217	-1083		-398		-138		-162	
Pap	0.053	57		21		7		9	
Age 30-39	0.010	10	\$3,696	4	\$1,360	1	\$472	2	\$551
Age 40-64	0.043	47	\$17,178	17	\$6,320	6	\$2,195	7	\$2,563
HPV	0.617	668		246		85		100	
Age 30-39	0.111	120	\$46,247	44	\$17,014	15	\$5,908	18	\$6,901
Age 40-64	0.506	548	\$214,661	202	\$78,972	70	\$27,425	82	\$32,032
Cotest	0.330	358		132		46		53	
Age 30-39	0.059	64	\$26,071	24	\$9,591	8	\$3,331	10	\$3,890
Age 40-64	0.271	293	\$134,723	108	\$49,564	37	\$17,212	44	\$20,103
Return HPV kit	0.404	-2018		-742		-258		-301	
HPV neg	0.910	1835	\$48,894	675	\$17,988	234	\$6,247	274	\$7,296
16+/18+	0.017	34	\$899	12	\$331	4	\$115	5	\$134
Other+/unsat	0.074	148	\$60,123	55	\$22,119	19	\$7,681	22	\$8,972
Total annual cost			\$583,641		\$214,717		\$74,566		\$87,091
Total 4-year cost			\$960,015						
Annual cost per member			\$116.73						
Per-member per-month			\$9.73						

Abbreviations
KPWA, Kaiser Permanente Washington
HPV, Human Papillomavirus

Footnotes
^aEstimates assume: 1) individuals continuously enrolled for 4 years; 2) does not account for individuals ages 62-64 years in Year 1 that may age out of screening prior to Year 4; 3) age distribution of sample: 18% age 30-39, 82% age 40-64; 4) proportion of KPWA population aging into eligible population: 0.8%; 5) Proportion of KPWA membership aging into eligible population: 2.0%; 6) Negative Papanicolaou procedure removes member from screening pool for 3 years; 7) negative HPV test result removes member from screening pool for 5 years; 8) positive HPV test result of "16+/18+" permanently removes member from screening pool.
^bAge distribution of sample: 18% age 30-39, 82% age 40-64

eTable 2. Budget Impact Analysis For KPWA/Wellness Cost Basis (Overdue Screening History)

Sample	Proportion	Year 1		Year 2		Year 3		Year 4	
		Population	Annual	Population	Annual	Population	Annual	Population	Annual
		N	Cost	N	Cost	N	Cost	N	Cost
Beginning mail population ^b		5000	\$31,150	3150	\$19,625	1962	\$12,225	1518	\$9,460
No screening	0.642	-3210		-2022		-1260		-975	
In-clinic screening	0.131	-655		-398		-257		-199	
Pap	0.097	64		40		25		9	
Age 30-39	0.018	11	\$4,106	7	\$2,587	5	\$1,612	2	\$1,247
Age 40-64	0.080	52	\$19,087	33	\$12,025	21	\$7,491	7	\$5,796
HPV	0.622	407		257		160		100	
Age 30-39	0.112	73	\$28,188	46	\$17,758	29	\$11,063	18	\$8,560
Age 40-64	0.210	334	\$130,838	210	\$82,428	131	\$51,349	82	\$39,734
Cotest	0.281	184		116		72		53	
Age 30-39	0.051	33	\$13,422	21	\$8,456	13	\$5,268	10	\$4,076
Age 40-64	0.230	151	\$69,357	95	\$43,695	59	\$27,220	44	\$21,063
Return HPV kit	0.228	-1140		-718		-447		-346	
HPV neg	0.929	1059	\$28,200	667	\$17,766	415	\$11,068	274	\$8,564
16+/18+	0.009	11	\$283	7	\$178	4	\$111	5	\$86
Other+/unsat	0.062	71	\$28,678	45	\$18,067	28	\$11,255	22	\$8,709
Total annual cost			\$353,308		\$222,584		\$138,659		\$107,296
Total 4-year cost			\$821,848						
Annual cost per member			\$70.66						
Per-member per-month			\$5.89						

Abbreviations
KPWA, Kaiser Permanente Washington
HPV, Human Papillomavirus

Footnotes
^aEstimates assume: 1) individuals continuously enrolled for 4 years; 2) does not account for individuals ages 62-64 years in Year 1 that may age out of screening prior to Year 4; 3) age distribution of sample: 18% age 30-39, 82% age 40-64; 4) proportion of KPWA population aging into eligible population: 0.8%; 5) Proportion of KPWA membership aging into eligible population: 2.0%; 6) Negative Papanicolaou procedure removes member from screening pool for 3 years; 7) negative HPV test result removes member from screening pool for 5 years; 8) positive HPV test result of "16+/18+" permanently removes member from screening pool.
^bAge distribution of sample: 18% age 30-39, 82% age 40-64

eTable 3. Budget Impact Analysis For KPWA/Wellness Cost Basis (Unknown Screening History)

Sample	Proportion	Year 1		Year 2		Year 3		Year 4	
		N	Population, N	N	Population, N ^a	N	Population, N ^a	N	Population, N ^a
Beginning mail population ^b			5000		4025		3228		2921
No screening	0.817		-4085		-3288		-2638		-2386
					-413				
In-clinic screening	0.149		-745		-600		-481		-435
Pap	0.081	60		48		39		35	
Age 30-39	0.015	11	\$3,870	9	\$3,115	7	\$2,499	6	\$2,261
Age 40-64	0.066	49	\$17,987	40	\$14,480	32	\$11,614	29	\$10,507
HPV	0.562	419		337		271		245	
Age 30-39	0.101	75	\$29,005	61	\$23,349	49	\$18,728	44	\$16,944
Age 40-64	0.461	344	\$134,633	277	\$108,380	222	\$86,931	201	\$78,647
Cotest	0.357	266		214		172		155	
Age 30-39	0.064	48	\$19,390	39	\$15,609	31	\$12,520	28	\$11,327
Age 40-64	0.293	218	\$100,195	176	\$80,657	141	\$64,694	128	\$58,530
Return HPV kit	0.034		-170		-137		-110		-99
HPV neg	0.857	146	\$3,882	117	\$3,125	94	\$2,506	85	\$2,268
16+/18+	0.042	7	\$190	6	\$153	5	\$123	4	\$111
Other+/unsat	0.101	17	\$6,943	14	\$5,589	11	\$4,483	10	\$4,056
Total annual cost			\$347,245		\$279,533		\$224,211		\$202,846
Total 4-year cost			\$1,053,836						
Annual cost per member			\$6,945.00						
Per-member per-month			\$5.79						

Abbreviations
KPWA, Kaiser Permanente Washington
HPV, Human Papillomavirus

Footnotes
^aEstimates assume: 1) individuals continuously enrolled for 4 years; 2) does not account for individuals ages 62-64 years in Year 1 that may age out of screening prior to Year 4; 3) age distribution of sample: 18% age 30-39, 82% age 40-64; 4) proportion of KPWA population aging into eligible population: 0.8%; 5) Proportion of KPWA membership aging into eligible population: 2.0%; 6) Negative Papanicolaou procedure removes member from screening pool for 3 years; 7) negative HPV test result removes member from screening pool for 5 years; 8) positive HPV test result of "16+/18+" permanently removes member from screening pool.
^bAge distribution of sample: 18% age 30-39, 82% age 40-64

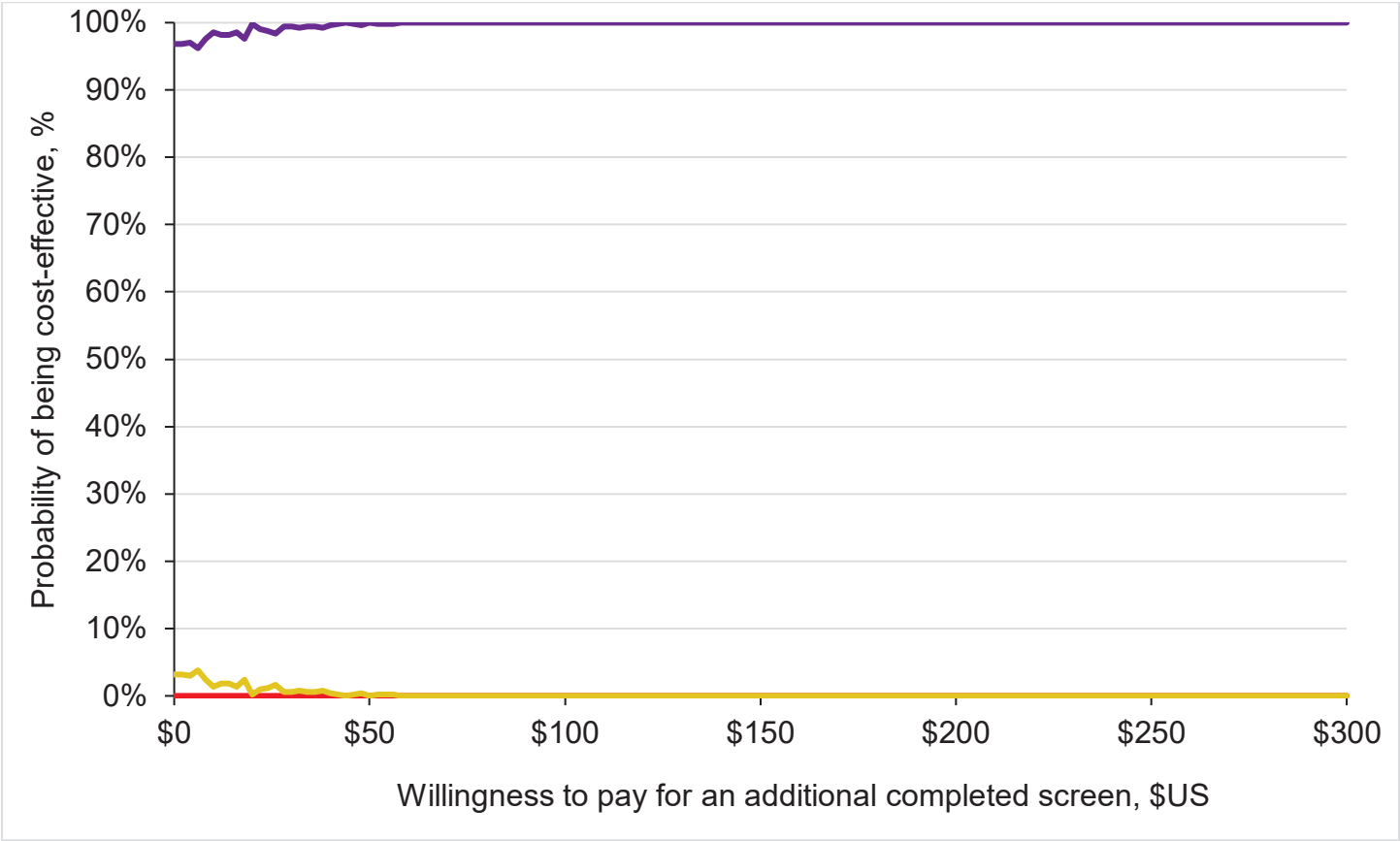
eFigure 1. Cost-Effectiveness Acceptability Curves For KPWA/Wellness Cost Basis (Adherent Screening History)



Abbreviations
KPWA, Kaiser Permanente Washington

- Legend
- Usual care
 - Education
 - Opt-in
 - Direct mail

eFigure 2. Cost-Effectiveness Acceptability Curves For KPWA/Wellness Cost Basis (Overdue Screening History)



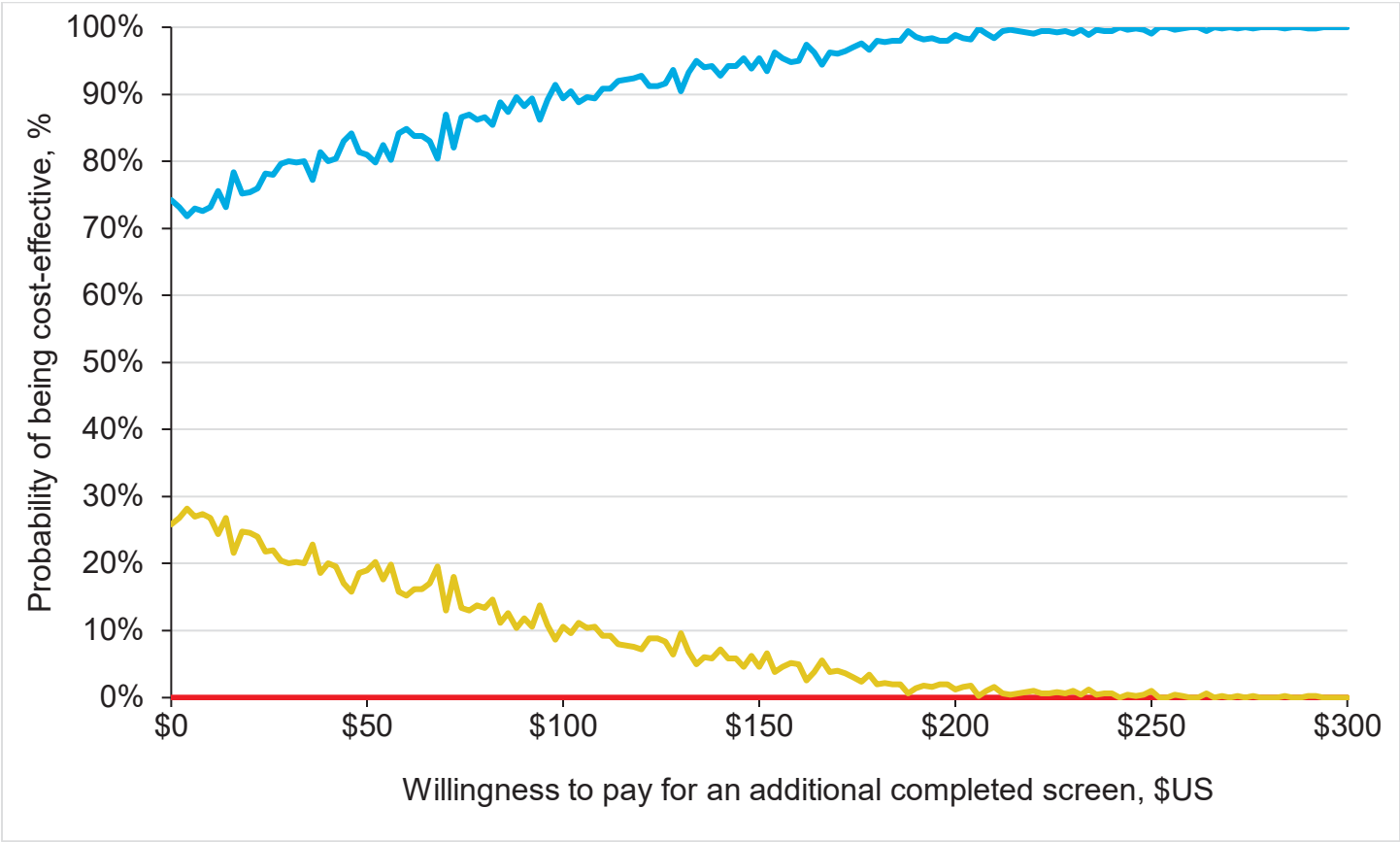
Abbreviations

KPWA, Kaiser Permanente Washington

Legend

- Usual care
- Education
- Direct mail

eFigure 3. Cost-Effectiveness Acceptability Curves For KPWA/Wellness Cost Basis (Unknown Screening History)



Abbreviations
KPWA, Kaiser Permanente Washington

Legend
— Usual care
— Education
— Opt-in