

## Multimedia Appendix 2. Information about studies included in the systematic review

Author, Year (Country) Development manuscript / link to decision aid	Study design	Decision context	Interventions (Sample size)	Control (Sample size)	Features being tested (Types of components)†	Quality of decision-making outcome (SMDs provided for RCTs reporting knowledge or decisional conflict)
<b>TREATMENT</b>						
<b>Akl, 2007 [32]</b> (United States)	Pre/post	Chronic obstructive pulmonary disease treatment	Computer-based decision aid (N=8)	Baseline measures	CC(abcd), T(c), PN(b), EVC(c), F(d)	Knowledge Decisional conflict
<b>Berman, 2011 [33]</b> (United States)	Pre/post	Abdominal aortic aneurysm treatment	Computer-based decision aid (N=12)	Baseline measures	CC(bc), T(b), PN(a), F(b), SS(bc)	Knowledge Decisional conflict
<b>*Berry, 2013 [34]</b> (United States) <i>Berry, 2010 [35]</i>	RCT	Prostate cancer treatment	Web-based decision aid + usual patient education + web links (n=218)	Usual patient education + web links (n=182)	CC(a), T(abc), PN(b), F(f), SS(c)	Decisional conflict (SMD=0.08) Decisional certainty
<b>Brink, 2000<sup>a</sup> [36]</b> (United States)	Pre/post	Prostate cancer treatment	CD-ROM decision aid (N=43)	Baseline measures	CC(ab), T(b), PN(a), EVC(ac), F(d), SS(b)	Knowledge Decisional self-efficacy
<b>*Davison, 2007 [31]</b> (Canada)	RCT	Prostate cancer treatment	Tailored risk summary + videotape + written information package (n=148)	Videotape + written information package (n=145)	T(bc), F(f)	Decisional conflict (SMD=0.04) Satisfaction with decision making
<b>*de Achaval, 2012 [37]</b> (United States)	RCT	Knee osteoarthritis treatment	1: Videobooklet + values clarification exercise (n=69) 2: Videobooklet (n=70)	Educational booklet (n=69)	1: PN(a), EVC(cd), F(cf) 2: PN(a)	Decisional conflict (SMD=0.37)
<b>Deyo, 2000<sup>b</sup> [38]</b> (United States) <i>Spunt, 1996 [39]</i> <i>Phelan, 2001 [40]</i>	RCT	Back pain treatment	Videodisc + booklet (n=190)	Booklet (n=203)	CC(abc), T(ab), PN(a), F(f), SS(c)	Satisfaction with decision making
<b>*Diefenbach, 2012 [30]</b> (United States) <i>Diefenbach, 2004 [41]</i>	RCT	Prostate cancer treatment	Computer-based decision aid (n=53)	Standard brochures (n=19)	CC(ab), T(ab[c] <sup>+</sup> ), PN(a), EVC(b, unclear), F(af), SS(c) *sometimes included	Decisional conflict (SMD=0.62)
<b>*Feldman-Stewart, 2012 [42]</b> (Canada) <i>Feldman-Stewart, 2006 [43]</i>	RCT	Prostate cancer treatment	Computer-based decision aid with values clarification (n=69)	Computer-based decision aid (n=65)	T(c), EVC(c), F(d)	Decisional conflict (SMD=0.10)
<b>Fraenkel, 2007 [44]</b> (United States)	RCT	Knee pain treatment	Computer-based decision aid (n=44)	Information pamphlet (n=40)	EVC(d), F(cdf)	Decisional self-efficacy
<b>Fraenkel, 2012 [45]</b> (United States)	Pre/post	Rheumatoid arthritis treatment	Web-based decision aid (N=104)	Baseline measures	CC(abc), EVC(c), F(bd)	Knowledge Decisional conflict
<b>Heller, 2008 [46]</b> (United States)	RCT	Breast cancer treatment	CD-ROM decision aid (n=67)	Usual care (n=66)	CC(a), T(c), PN(a), SS(c)	Knowledge (Insufficient data to calculate SMD) Satisfaction with decision making

<b>Jibaja-Weiss, 2006<sup>c</sup> [47]</b> (United States) <i>Development manuscript not accessible</i>	Pre/post	Breast cancer treatment	Computer-based decision aid (N=44)	Baseline measures	CC(abc), T(abc), PN(ab), EVC(bc), F(f), SS(abc)	Decisional conflict
<b>*Jibaja-Weiss, 2011<sup>c</sup> [48]</b> (United States) <i>Jibaja-Weiss, 2006 [47]</i> <i>Link was updated; not used in abstraction</i>	RCT	Breast cancer treatment	Computer-based decision aid (n=44)	Usual care (n=39)	CC(abc), T(abc), PN(ab), EVC(bc), F(f), SS(abc)	Knowledge (SMD=0.75) Decisional conflict (SMD=0.25) Satisfaction with decision making Decisional certainty
<b>Liao, 1996<sup>d</sup> [49]</b> (United States)	Pre/post	Ischemic heart disease treatment	Videodisc decision aid (N=60)	Baseline measures	CC(ab), T(b), PN(a)	Decisional certainty
<b>Maslin, 1998 [50]</b> (United Kingdom)	RCT	Breast cancer treatment	Videodisc (n=51)	Usual care (n=49)	CC(c), T(ab), SS(c)	Satisfaction with decision making
<b>Molenaar, 2001 [51]</b> (Netherlands)	RCT	Breast cancer treatment	CD-ROM decision aid (n=87)	Usual care (n=72)	CC(abcd), PN(a), SS(ac)	Satisfaction with decision making
<b>Morgan, 2000<sup>d</sup> [52]</b> (Canada) <i>Liao, 1996 [49]</i>	RCT	Ischemic heart disease treatment	Videodisc (n=90)	Usual care (n=97)	CC(ab), T(ab), PN(a), F(f), SS(c)	Knowledge (Insufficient data to calculate SMD) Satisfaction with decision making
<b>*Murray, 2001 [53]</b> (United Kingdom) <i>Clinician guide not accessible</i>	RCT	Menopausal symptom treatment	Videodisc decision aid + booklet (n=94)	Usual care (n=96)	CC(bc), SS(c)	Decisional conflict (SMD=0.54) Decisional certainty
<b>Phelan, 2001<sup>b</sup> [40]</b> (United States) <i>Spunt, 1996 [39]</i>	RCT	Back pain treatment	Videodisc decision aid + booklet (n=41)	Booklet (n=49)	CC(abc), T(ab), PN(a), F(f)	Knowledge (Insufficient data to calculate SMD)
<b>Piercy, 1999 [54]</b> (Canada) <i>Development manuscript not accessible</i>	Pre/post	Benign prostatic hyperplasia treatment	Videodisc decision aid (N=635)	Baseline measures	CC(c), T(ab), PN(a), F(f), SS(c)	Decisional certainty
<b>*Protheroe, 2007 [55]</b> (United Kingdom)	RCT	Menorrhagia treatment	Computerized decision aid + written information (n=54 for knowledge; n=69 for decisional conflict)	Written information (n=54 for knowledge; n=69 for decisional conflict)	CC(bd), EVC(bcd), F(df)	Knowledge (SMD=0.57) Decisional conflict (SMD=1.04) Decisional certainty
<b>*Rostom, 2002 [56]</b> (Canada)	RCT	Menopausal symptom treatment	Computer-based decision aid (n=25)	Audiobooklet decision aid (n=26)	CC(b), T(unclear), F(b)	Knowledge (SMD=0.64)
<b>Sawka, 2011 [57]</b> (Canada) <i>Sawka, 2011 [58]</i>	Pre-post	Papillary thyroid cancer treatment	Web-based decision aid (N=50)	Baseline measures	CC(bcd), SS(a)	Knowledge
<b>*Sawka, 2012 [59]</b> (Canada) <i>Sawka, 2011 [58]</i>	RCT	Papillary thyroid cancer treatment	Web-based decision aid (n=37)	Usual care (n=37)	CC(bcd), SS(a)	Knowledge (SMD=1.88) Decisional conflict (SMD=1.48) Decisional certainty
<b>*Schapira, 2007 [60]</b> (United States)	RCT	Menopausal symptom treatment	Computer-based decision aid (n=85)	Printed pamphlet (n=86)	CC(ad), T(ab), PN(a)	Knowledge (SMD=-0.15) Decisional conflict (SMD=0.07) Satisfaction with decision making
<b>*Simon, 2012 [61]</b> (Germany)	RCT	Depression or back pain treatment	Web-based decision aid (n=308)	Static patient information (n=349)	CC(bc), T(abc), SS(c)	Knowledge (SMD=0.23) Decisional conflict (SMD=0.24)

<b>Sivell, 2012 [62]</b> (United Kingdom) <i>Sivell, 2012 [63]</i> <i>Webpage data abstracted; however, link not currently accessible (update in progress)</i>	Pre/post	Breast cancer treatment	Web-based decision aid (n=45)	Baseline measures (n=54)	CC(abcd), PN(ab), EVC(c), F(df), SS(ac)	Knowledge Decisional certainty
<b>Spunt, 1996<sup>b</sup> [39]</b> (United States)	Pre/post	Back pain treatment	Videodisc decision aid (N=175)	Baseline measures	CC(abc), T(ab), PN(a), F(f)	Decisional certainty
<b>Taylor, 2010<sup>a</sup> [64]</b> (United States)	RCT	Prostate cancer treatment	CD-ROM decision aid + decision tools (n=42)	CD-ROM decision aid (n=53)	CC(b), T(bc), EVC(b)	Satisfaction with decision making
<b>*Thomson, 2007 [65]</b> (United Kingdom) <i>Thomson, 2002 [66]</i>	RCT	Atrial fibrillation treatment	Computer-based decision aid (n=53)	Paper guidelines (n=55)	T(abc), EVC(c), F(def), SS(c)	Knowledge (SMD=0.06) Decisional conflict (SMD=0.42)
<b>van Til, 2010 [67]</b> (Netherlands)	Pre/post	Ankle-foot impairment treatment after stroke or arm-hand function treatment after cervical spinal cord injury	Web-based decision aid (n=39 for stroke; n=38 for spinal injury)	Baseline measures	EVC(unclear)	Knowledge Decisional conflict
<b>RISK MANAGEMENT</b>						
<b>Hooker, 2011<sup>e</sup> [68]</b> (United States) <i>Kaufman, 2003 [69]</i>	RCT	Breast cancer risk management	CD-ROM decision aid (n=96)	Usual care (n=108)	CC(abc), T(abc), PN(a), EVC(cd), F(de), SS(c)	Decisional certainty
<b>*Huyghe, 2009 [70]</b> (France)	RCT	Fertility risk management	Computer-based decision aid (n=10)	Usual care (n=10)	CC(abd), EVC(c), F(b), SS(bc)	Knowledge (SMD=0.51) Decisional conflict (SMD=1.23)
<b>*Montgomery, 2007 [71]</b> (United Kingdom) <i>Emmett, 2007 [72]</i>	RCT	Vaginal birth after cesarean risk management	1: Computer-based decision aid (n=198 for knowledge and decisional conflict) 2: Computer-based information program (n=196 for knowledge; n=201 for decisional conflict)	Usual care (n=202 for knowledge; n=201 for decisional conflict)	1: CC(ab), EVC(c), F(df) 2: CC(abd)	Knowledge (SMD=0.57) Decisional conflict (SMD=0.28) Satisfaction with decision making
<b>*Saver, 2007 [73]</b> (United States)	RCT	Menopausal risk management	<i>RCT 1: Web-based decision aid (n=144)</i> <i>RCT 2: Web-based decision aid (n=22)</i>	<i>RCT 1: Brochure (n=199)</i> <i>RCT 2: Usual care (n=19)</i>	CC(bd), EVC(b), SS(a)	Knowledge (SMD=0.49) Decisional conflict (SMD=-0.02) Satisfaction with decision making
<b>Schwartz, 2009<sup>e</sup> [74]</b> (United States) <i>Kaufman, 2003 [69]</i>	RCT	Breast cancer risk management	CD-ROM decision aid (n=110)	Usual care (n=114)	CC(abc), T(abc), PN(a), EVC(cd), F(de), SS(c)	Decisional conflict (Insufficient data to calculate SMD) Satisfaction with decision making Decisional certainty
<b>*Wilkie, 2013 [75]</b> (United States) <i>Gallo, 2013 [76]</i>	RCT	Reproductive health risk management in people with sickle cell disease or trait	Web-based decision aid (n=114)	Web-based e-Book (n=117)	CC(b), T(ab), PN(ab), EVC(ef), SS(b)	Knowledge (SMD=0.43)

SCREENING						
<b>Allen, 2009 [77]</b> (United States)	Pre/post	Prostate cancer screening	Computer-based decision aid (N=107)	Baseline measures	CC(abc), EVC(unclear), F(f)	Knowledge Decisional conflict Decisional certainty Decisional self-efficacy
<b>*Allen, 2010 [78]</b> (United States) <i>Development manuscript not accessible</i>	RCT	Prostate cancer screening	Computer-based decision aid (n=291)	Usual care (n=334)	CC(abc), T(ab), PN(b), EVC(c), F(ef)	Knowledge (SMD=0.19) Decisional conflict (SMD=0.17) Decisional certainty Decisional self-efficacy
<b>*Ellison, 2008 [79]</b> (United States) <i>Link no longer accessible</i>	RCT	Prostate cancer screening	Enhanced web-based decision aid (n=46)	Standard web-based decision aid (n=41)	CC(b), T(a), PN(a), SS(a)	Knowledge (SMD=0.58)
<b>Evans, 2010 [80]</b> (United Kingdom) <i>Link no longer accessible</i>	RCT	Prostate cancer screening	1: Web-based decision aid (n=48) 2: Paper-based decision aid (n=57)	1: Usual care (n=69) 2: Usual care at 6 months (n=100)	1: PN(a), EVC(c) 2: no multimedia features	Knowledge (Insufficient data to calculate SMD) Decisional conflict (Insufficient data to calculate SMD)
<b>*Frosch, 2008 [81]</b> (United States)	RCT	Prostate cancer screening	1: Traditional decision aid + chronic disease trajectory model (n=152) 2: Chronic disease trajectory model (n=153) 3: Traditional decision aid (n=155)	Internet links (n=151)	1: PN(a), EVC(cd), SS(c) 2: EVC(cd) 3: PN(a), SS(c)	Knowledge (SMD=0.25) Decisional conflict (SMD=0.07)
<b>Green, 2004 [82]</b> (United States) <i>Development manuscript not accessible</i>	RCT	BRCA1/2 screening	CD-ROM decision aid (n=56)	Usual care (n=61)	CC(a)	Knowledge (Insufficient data to calculate SMD) Satisfaction with decision making
<b>Kuppermann, 2009 [83]</b> (United States)	RCT	Prenatal screening	Computer-based decision aid (n=244)	Online educational booklet (n=252)	T(c, unclear), EVC(unclear), F(f)	Knowledge (Insufficient data to calculate SMD) Decisional conflict (Insufficient data to calculate SMD)
<b>Leung, 2004 [84]</b> (Hong Kong)	RCT	Prenatal screening	Computerized decision aid + video + information leaflet (n=99)	Video + information leaflet (n=101)	CC(bc), T(c)	Decisional certainty
<b>Lindblom, 2012 [85]</b> (Australia) <i>Link no longer accessible</i>	Pre/post	Colorectal cancer screening	Web-based decision aid (N=81)	Baseline measures	T(c), F(b)	Knowledge
<b>*Manne, 2010 [86]</b> (United States)	RCT	Lynch syndrome screening	CD-ROM decision aid + education session (n=92)	Education session only (n=95)	CC(bc)	Knowledge (SMD=1.09) Decisional conflict (SMD=0.36) Satisfaction with decision making Decisional self-efficacy
<b>*Mathieu, 2010 [87]</b> (Australia) <a href="http://www.mammogram.med.usyd.edu.au">www.mammogram.med.usyd.edu.au</a> [88]	RCT	Breast cancer screening	Computer-based decision aid (n=113)	Usual care (n=189)	CC(acd), PN(a), EVC(c), F(f)	Knowledge (SMD=0.59) Decisional certainty

<b>Ruffin, 2007 [89]</b> (United States) <i>Link no longer accessible</i>	RCT	Colorectal cancer screening	Computer-based decision aid (n=87)	Standard website (n=87)	EVC(d), F(d), SS(c)	Decisional certainty
<b>Rupert, 2013 [90]</b> (United States)	Pre/post	Hereditary breast and ovarian cancer syndrome screening	Web-based decision aid (N=48)	Baseline measures	CC(abd), T(ab), EVC(a), F(df), SS(c)	Knowledge Decisional self-efficacy
<b>*Schroy, 2011 [91]</b> (United States) <i>www.yourdiseaserisk.wustl.edu [92]</i>	RCT	Colorectal cancer screening	1: Computer-based decision aid + personalized risk assessment (n=223) 2: Computer-based decision aid (n=212)	Webpage (n=231)	1: CC(abc), T(ab), PN(a), EVC(d), SS(c) 2: CC(abc), PN(a), EVC(d), SS(c)	Knowledge (SMD=0.91) Satisfaction with decision making
<b>*Volk, 2008 [93]</b> (United States)	RCT	Prostate cancer screening	Computer-based decision aid (n=38 for low literacy; n=108 for high literacy)	Audio-booklet (low literacy n=46; high literacy n=131)	CC(ab), T(a), PN(b), EVC(e), SS(a)	Knowledge (Insufficient data to calculate SMD) Decisional conflict (SMD=0.33)
<b>PREVENTION</b>						
<b>*Banegas, 2013 [94]</b> (United States) <i>Fagerlin, 2011 [95]</i>	RCT	Breast cancer prevention	Web-based decision aid (n=690)	Usual care (n=160)	T(ab), EVC(unclear)	Decisional conflict (SMD=0.56) Decisional certainty
<b>*Ozanne, 2007 [96]</b> (United States)	RCT	Breast cancer prevention	Computer-based decision aid (n=15)	Usual care (n=15)	T(ab)	Knowledge (SMD=0.63) Decisional conflict (SMD=0.78) Satisfaction with decision making Decisional certainty
<b>Sheridan, 2006<sup>f</sup> [97]</b> (United States) <i>Pignone, 2004 [98]</i> <i>Link was updated; not used in abstraction</i>	RCT	Coronary heart disease prevention	Web-based decision aid (n=41)	Risk factor list (n=34)	T(abc), F(f), SS(c)	Decisional certainty
<b>Sheridan, 2010<sup>f</sup> [99]</b> (United States) <i>Pignone, 2004 [98]</i> <i>www.med-decisions.com/h2hv2 [100]</i>	RCT	Coronary heart disease prevention	Web-based decision aid + values clarification (n=75)	Web-based decision aid (n=62)	EVC(cd), F(c)	Knowledge (Insufficient data to calculate SMD) Decisional certainty Decisional self-efficacy
<b>Sheridan, 2011<sup>f</sup> [101]</b> (United States) <i>Pignone, 2004 [98]</i> <i>Sheridan, 2010 [99]</i> <i>www.med-decisions.com/h2hv2 [100]</i>	RCT	Coronary heart disease prevention	Web-based decision aid (n=77)	Risk factor list (n=77)	CC(cd), T(abc), EVC(cd), F(cf), SS(c)	Decisional certainty

\*Studies included in the meta-analysis; <sup>a-f</sup>Studies employing the same decision aids are denoted with alpha superscripts (a through f); it is important to note, however, that the studies may be testing different features of the decision aid (as determined by the control group) or updated versions of the same decision aid; †Legend for column: CC = content control (with types: a = navigation, b = clarity of information, c = optional information, d = access to external resources), T = tailoring (with types: a = demographics, b = clinical condition, c = values, preferences, and beliefs, d = knowledge deficits), PN = patient narratives (with types: a = patient stories, b = behavior modeling), EVC = explicit values clarification (with types: a = decision points, b = notebook, c = weighting exercises, d = trade-off exercises, e = social matching, f = personal reflection), F = feedback (with types: a = decision aid progress, b = knowledge, c = summary of preferences, d = optimal choice, e = decisional consistency, f = summary of decision aid activity), and SS = social support (with types: a = community support, b = integration of family, c = facilitation of shared decision making).