

Supplementary Table S4. Characteristics of D&I strategies and cost information.

Study	EBP	Action target	Individual vs. organizational (action target)	No. of action target	Implementation outcomes	Mapped discrete D&I strategies (costs, if any)	Total costs	Mean costs per action target	Mean costs per EBP participant
Afshar, 2019 [51]	CMS sepsis management bundles	Clinician	Individual	N/A	Adoption	-Audit and provide feedback (\$891,970) -Conduct ongoing training (\$3,897) -Develop educational materials (\$759) -Develop and organize quality monitoring systems (\$243,418) -Purposely reexamine the implementation (\$64,992)	\$1,205,037	N/A	\$155
Becker, 2012 [75]	LBP management guideline	Physician & nurse	Individual	126 for physician (GI) & 72 for nurse (MC)	Adoption	-Conduct ongoing training	\$52,758 (GI only); \$72,054 (GI + MC)	N/A	\$110 (GI only); \$147 (GI+MC)
Broughton, 2013* [65]	Kangaroo mother care	Clinician	Individual	3	Adoption	-Conduct educational meetings -Conduct ongoing training -Development educational materials (\$2,431) -Use train-the-trainer strategies (\$19,661) -Distribute educational materials (\$5,153)	\$22,092	\$7,364	\$425
Broughton, 2018 [36]	Voluntary medical male circumcision	Health workers	Individual	N/A	Compliance	-Conduct educational outreach visit (\$51,740) -Facilitation (\$58,440)	\$5,153 (M); \$51,740 (MH); \$58,440 (MHC)	N/A	\$1.2 (M); \$21.4 (MH); \$29.7 (MHC)
Calo, 2018 [88]	HPV vaccination	Providers	Individual	9 (in-person); 5 (webinar)/session	Reach/acceptability	-Facilitation	\$755/session (in person delivery); \$475/session (webinar delivery)	\$84 (in person); \$95 (webinar)/provider	N/A
Chandrashakar, 2019 [40]	Maternal & newborn health behavior	Self-help groups (SHGs)	Individual	17,120	Adoption	-Intervene with patients/consumer to enhance uptake & adherence	\$4,399,840	\$257/SHG	\$16
Chang, 2016 [55]	HIV testing	Community		12	Reach	-Conduct educational meetings (\$658,428) -Identify and prepare champion (\$274,200)	\$932,627	\$77,719	\$207

Chung, 2018 [37]	Depression collaborative care	Clinic & community	Organizational	45 (RS); 48 (CEP)	Adoption	-Build a coalition (\$326,123) -Facilitation (\$117,887)	\$117,889 (RS); \$326,123 (CEP)	\$2,620 (RS); \$6,794 (CEP)	\$235 (RS); 637 (CEP)
Claes, 2010 [76]	CVD guideline	General practice & staff	Individual	102	Adoption	-Conduct ongoing training (\$12,067) -Inform local opinion leader (\$1,455)	\$125,792	\$1,233	N/A
Dalaba, 2014 [77]	WHO PCPNC guideline	Nurse, midwife, & medical assistant	Individual	22	Fidelity	-Conduct ongoing training	\$3,194	\$1,195/CDSS user trained	\$0.5
Dik, 2015 [90]	Antibiotic Stewardship Team	A-team (physical, fellow, & resident)	Individual	1	Feasibility	-Audit and provide feedback	\$26,093	\$26,093/A-Team	\$229
Dirks, 2012 [93]	Thrombolysis	Hospital	Organizational	6	Adoption	-Organize clinician implementation team meetings	\$85,422	\$14,237	\$97
Dopp, 2017 [41]	TF-CBT	Therapists & clinical supervisors	Individual	574	Competence	-Create a learning collaborative	\$555,588	\$12,583	\$5,115
Doran, 2016 [50]	skin cancer prevention strategy	Adolescents & young adults	Individual	N/A	Reach	-Conduct education meetings	\$1.1-\$2.9 million/year	N/A	\$0.16-\$0.40
Edwards, 2016 [49]	Incredible Years BASIC parenting program	Group leaders	Individual	60	Adoption	-Provide ongoing consultation (\$58,692) -Recruit designate and train for leadership (\$113,188)	\$171,881	\$2,865	\$1,563
Emery, 2018 [92]	Tailored text message smoking cessation	N/A	Organizational	N/A	Adoption	-Use mass media	\$1,623/1 month (Google); \$1,507/3 months (FB)	N/A	\$40 (Google); \$36 (FB)/ per initiation of smoking cessation program
Engel, 2014 [86]	Treatment guideline of appropriate timing of the switch to oral antibiotics	Physician	Individual	42	Fidelity	-Conduct local consensus discussion (\$937) -Conduct education meetings (\$7,752)	\$8,689	\$207	\$39

Fortney, 2014 [56]	Telemedicine-based collaborative care	community-based outpatient clinic	Organizational	11	Adoption	-Facilitation -Purposely reexamine the implementation	\$101,403	\$9,218	\$90
Freedman, 2017 [48]	Portable handwashing water stations & drinking water stations	Healthcare facility	Organizational	117	Adoption	-Use train-the-trainer strategies	\$17,844	\$440	\$0.02
Galactionova, 2015 [28]	Malaria vaccine (RTS,S/AS01)	Immunization staff	Individual	N/A	Adoption	-Develop educational materials -Conduct ongoing training -Use social media -Chance record system -Conduct education meetings	\$969,322 (Burkina Faso), \$1,744,263 (Ghana), \$466,714 (Senegal), \$2,972,346 (Kenya), \$1,044,440 (Tanzania), \$478,088 (Uganda)	N/A	\$14 (Burkina Faso); \$2 (Ghana); \$1 (Senegal); \$1 (Tanzania); \$0.3 (Uganda)
Galaviz, 2017* [29]	PA counseling	Physician	Individual	305	Adoption/implementation	-Identify and prepare champions -Conduct ongoing training (\$273)	\$273 (\$21/session)	\$1	N/A
Garner, 2018 [34]	A-CRA	Community organization	Organizational	14 (IAU); 15 (IAU+P4P)	Competence	-Conduct education meetings (\$22,366 (IAU); \$2,7873 (IAU+P4P)) -Use other payment scheme (\$3,484)	\$22,366 (IAU); \$31,356 (IAU+P4P)	\$1,598 (IAU); \$2,090 (IAU+P4P)	\$35 (IAU); \$58 (IAU+P4P)
Gilkey, 2014 [42]	Adolescent immunization	Primary care clinic	Organizational	30 (in-person); 31 (webinar)	Reach	-Facilitation	\$5,000 (in-person delivery); \$3,387 (webinar delivery)	\$167 (in-person); \$109 (webinar)	N/A
Green, 2017 [53]	Colorectal cancer screening	Primary care clinic	Organizational	1	Reach	-Distribute educational materials	\$11,339	\$11,339	\$5

Griffiths, 2016 [69]	Pneumococcal, rotavirus, & measles vaccine	Immunization staff	Individual	26	Reach	-Conduct education meetings (\$44,165(MSD), \$176,659(PCV), \$422,894(RV)) -Mandate change (\$66,647(MSD), \$266,587PCV), \$412,362(RV))	\$672,679 (MSD); \$1,415,931 (PCV); \$2,515,046 (RV)	N/A	\$1.05 (MSD); \$2.21 (PCV); \$3.91 (RV)
Hansen, 2017 [32]	ACTs	Drug shop vendors	Individual	29 (intervention); 30 (control)	Fidelity	-Conduct education meetings (\$1,004 (intervention), \$987 (control)) -Conduct ongoing training (\$4,055 (control), \$4950(intervention)) -Facilitation (\$2950 (control), \$3733 (intervention))	\$10,022 (intervention); \$8,257 (control)	\$346 (intervention); \$275 (control)	\$4 (intervention); \$3 (control)
Hiscock, 2019 [39]	Sleep behavioral intervention	Pediatrician & psychologist	Individual	32 pediatricians & 27 psychologists	Adoption	-Conduct ongoing training	\$212	\$4	\$1
Hoelt, 2019 [54]	Collaborative care	Site (primary care clinic & their community partner organizations)	Organizational	7 sites	Adoption	-Conduct ongoing training (\$63,534) -Develop a formal implementation blueprint (\$41,499)	N/A	\$39,764-\$61,321	N/A
Howson, 2018 [78]	Mealtime assistance	Trained volunteer	Individual	65	Reach & fidelity	-Conduct ongoing training	\$8,449	\$130	\$10
Ibrahim, 2018 [44]	Grip strength measurement protocol	Nurse	Individual	155	Acceptability, feasibility, fidelity	-Conduct ongoing training -Develop educational materials -Use advisory boards and workgroups -Audit and provide feedback	Range: \$3,342-\$3,469	\$22	N/A
James, 2017 [79]	Tuberculosis active case finding Clinical practice guideline on the management of LBP	Community health worker	Individual	NA	Reach	-Conduct ongoing training	\$65,196 (Cenat); \$21,386 (Hope); \$12,144 (Cata)	N/A	\$81 (Cenat); \$29 (Hope); \$31(Cata)
Jensen, 2017 [89]	Tuberculosis active case finding Clinical practice guideline on the management of LBP	General practice	Organizational	28	Adoption	-Develop and organize quality monitoring systems (\$9,741) -Facilitation (\$20,574) -Use train-the-trainer strategies (\$20,070)	\$50,383	\$1,799	\$93

Jordan, 2019 [80]	Family Check-up 4 Health	Primary care clinic	Organizational	3	Adoption	-Conduct ongoing training (\$42,086) -Develop a formal implementation blueprint (\$16,270)	\$196,006	\$65,335	N/A
Krukowski, 2013 [27]	LHE-delivered DPP	Lay health educator	Individual	20	Adoption	-Conduct ongoing training (\$6,031) -Develop educational materials (1,295)	\$7,288	\$364	\$63
Kyabayinze, 2012 [81]	Malaria rapid diagnostic tests	Health worker	Individual	135	Adoption	-Conduct ongoing training	\$17,089	\$114	N/A
Lara, 2018 [57]	Colorectal cancer screening	Primary care clinic	Organizational	Health system 1 (9 clinics), Health system 2 (4 clinics)	Reach/penetration	-Audit and provide feedback -Remind clinicians -Intervene with patients/consumers to enhance uptake and adherence	N/A	\$62,072 (health system 1); \$28,341 (health systems 2)	\$25 (health system 1); \$30 (health system 2)
Liu, 2009* [82]	QI for depression care	Multistate regional network	Organizational	86 (clinical team); 42 (technical team)	Fidelity	-Conduct ongoing training (\$33,494 (clinical team), \$33,640 (technical team)) -Develop educational materials -Provide local technical assistance (\$2,056 (clinical team), \$12,953 (technical team)) -Remind clinicians (\$8,794 (clinical team), \$105,457 (technical team)) -Use advisory boards and workgroups (\$60,923 (clinical team), \$62,873 (technical team))	\$118,770 (clinical team); \$278,204 (technical expert team)	\$1,381 (clinical team); \$6,624 (technical expert team)	N/A
Moessner, 2016 [35]	Internet-based program for the prevention and early intervention in ED (ProYouth)	Secondary high school	Organizational	80 (strategy 1); 71 (strategy 2); 68 (strategy 3); 74 (strategy 4); 72 (strategy 5)	Reach	-Conduct educational meeting (3,931) -Distribute educational materials (\$6,096) -Inform local opinion leaders (\$1,004) -Identify and prepare champions (\$782) -Use mass media (\$1,274)	\$1,274 (strategy 1); \$1,004 (strategy 2); \$782 (strategy 3); \$6,096 (strategy 4); \$3,931 (strategy 5)	\$16 (strategy 1); \$14 (strategy 2); \$12 (strategy 3); \$82 (strategy 4); \$55 (strategy 5)	\$61 (strategy 1); \$59 (strategy 2); \$112 (strategy 3); \$41 (strategy 4); \$5 (strategy 5)

Mortimer, 2018* [30]	Evidence-based guidelines	Emergency department	Organizational	10	Adoption	-Distribute educational materials -Provide local technical assistance (\$8,195) -Inform local opinion leaders(\$1,663) -Organize clinician implementation team meetings (\$6,326) -Use train-the-trainer strategy (\$51,894)	\$91,952	\$9,195	\$730
Mortimer, 2013 [33]	Clinical practice guidelines for acute LBP	General practitioner	Individual	59 (active implementation); 53 (standard dissemination)	Fidelity	-Conduct ongoing training (\$13,799) -Distribute educational materials (\$1,884) -Make training dynamic (\$7,481) -Provide local technical assistance (\$11,296)	\$27,270 (active implementation); \$4,955 (standard dissemination)	\$462 (active implementation); \$93 (guideline dissemination)	N/A
Njau, 2008 [83]	Malaria treatment (ACT)	Public health & mission health facility	Organizational	56	Reach	-Conduct ongoing training (\$30,774) -Change record systems (\$111,661) -Use mass media (\$59,404)	\$201,838	\$3,604	N/A
Perraudin, 2019 [84]	Inter-professional medication adherence program	Pharmacy technician	Individual	N/A	Adoption	-Conduct ongoing training (\$2,830) -Develop educational materials (\$1,310) -Develop a formal implementation blueprint (\$2,774)	\$7,408	N/A	N/A
Quanbeck, 2018 [91]	Clinical guidelines for opioid prescribing in primary care	Primary care clinic	Organizational	4	Adherence	-Audit and provide feedback (\$30,280) -Conduct educational outreach visits -Facilitation	\$30,280	\$7,570	\$4
Quinn, 2016 [45]	ENGAGE-HD PA intervention	Health coaches	Individual	7	Fidelity	-Conduct ongoing training (\$50,727) -Provide ongoing consultation (\$31,025) -Audit and provide feedback (\$3,100(high), \$1,417(medium), \$3,189(low))	\$81,752	\$11,679	N/A
Reilly, 2018 [47]	Australian healthy canteen policies	School	Organizational	35 (high); 28 (medium); 36 (low)	Adherence /compliance	-Conduct ongoing training (\$105,772(high);, \$45,590(medium), \$49,803(low)) -Facilitation (\$64,464(high), \$583(medium)) -Conduct local consensus discussions (\$209 (high))	N/A	\$116,911 (High), \$49,662 (Medium), \$52,992 (Low)/ per school	N/A

Ritchie, 2019 [43]	Primary care mental health integration	Primary care clinic	Organizational	4 (network A); 4 (network C)	Reach, adoption, adherence	-Facilitation	\$266,736 (network A), \$261,307 (network C)	\$66,684 (network A), \$65,327 (network C)	N/A
Romney, 2014 [38]	Positive Parenting Program (Triple P)	Staff & supervisor	Individual	13 staff, 4 sites (with readiness process); 6 staff, 2 sites (w/o readiness process)	Acceptability	-Conduct ongoing training -Assess for readiness and identify barriers and facilitators -Facilitation	\$36,817 (w/ readiness process)/ \$17,078 (w/o readiness process)	\$2,832 (w/ readiness process); \$2,846 (w/o readiness process)	\$751 (w/ readiness process); \$1,139 (w/o readiness process)
Sadasivam, 2013 [58]	Decide2Quit	Medical practice/dental practice	Organizational	87 (medical practice); 50 dental practice)	Feasibility	-Conduct ongoing training -Distribute educational materials	\$40,985 (medical practice); \$13,262 (dental practice)	\$477 (medical practice); \$265 (dental practice)	\$97 (medical practice); \$74 (dental practice)
Sari, 2017 [85]	Healthy Start-Départ Santé intervention	Early learning center educators	Individual	N/A	Appropriateness/sustainability	-Conduct ongoing training (\$\$330-\$1864/session) -Distribute educational materials (\$9,991(year 1), \$8,793 (year 2), \$6,580 (year 3)) -Provide ongoing consultation (\$334,252(year 1), \$332,201 (year 2), \$278,558 (year 3))	\$413,576 (year 1); \$389,668 (year 2); \$340,879 (year 3)	N/A	\$311
Shelley, 2015 [46]	Syphilis POC screening test	Health center/hospital	Organizational	5 (pilot); 4 (rollout)	Reach	-Conduct educational meetings (\$35/facility (pilot)) -Use train-the-trainer strategies (\$100/facility (pilot), \$184/facility (rollout))	N/A	\$135/facility (pilot); \$184/facility (rollout)	N/A
Soi, 2019 [87]	HPV vaccination	Staff from health facilities & districts	Individual	45	Reach	-Conduct educational meetings (\$67,801 (year 1), \$30,134 (year 2)) -Provide clinical supervision (\$60,441 (year1), \$38,120 (year 2))	\$132,664 (year 1); \$70,219 (year 2)	\$2,948 (year 1); \$1,560 (year 2)	\$78 (year 1); \$41 (year 2)/fully immunized girl
Stults, 2016 [52]	SMAAs	Physicians/staff	Individual	9	Adoption	-Conduct ongoing training (\$375) -Conduct education meetings (\$47,387) -Develop education materials (\$3,875) -Provide local technical assistance (\$625)	\$52,262	\$5,807	N/A

*Studies did not include costs for some identified implementation strategies or costs were not separable.

All the costs were reported in 2020 US dollars.

D&I, dissemination and implementation; EBP, evidence-based program; LBP, low back pain; POC, point-of-care; QI, quality improvement; PA, physical activity; DPP, diabetes prevention program; QI, quality improvement; ED, eating disorders; SMAs, shared medical appointments; ACTs, artemisinin- based combination therapies; CDSS, clinical decision support system; PCPNC, Pregnancy, Childbirth, Postpartum and Newborn Care; A-CRA, adolescent community reinforcement approach; IAU, implementation-as-usual; P4P, pay-for-performance; MSD, measles; PCV, pneumococcal conjugate vaccine; RV, rotavirus vaccine; GI, guideline implementation; MC, motivational counseling; TF-CBT, trauma-focused cognitive behavioral therapy; RS, resources for services; CEP, community engagement and planning; HPV, human papillomavirus; M, manual; MH, manual and handover meeting; MHC, manual, handover meeting and coaching visits.