Additional file 4: Characteristics of included studies and AMSTAR quality assessment

Table 1. Characteristics of included systematic reviews

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
Abu Abed 2014	Evaluate the efficacy of video-assisted patient education to modify behavior.	Yes	20 randomized control trials	October 2013	Video-assisted patient education to modify behavior. Variable in length, content and structure	The articles addressed 12 different diseases or health-related problems.	Video-watching at the study site or at home.	not described	None
Akesson 2006	To describe consumers' subjective experiences of electronic information and communication resources with reference to health and illness.		12 studies of medium and high quality. Seven quantitative (2 descriptive and 5 RCT) and 5 qualitative studies.	April 2004	e-mail 12 months, Computer 5-10 min/year, Telecommunication weekly 1 year	Strategy 1: 98 participants: families with very low birth weight babies; elderlies' families and/or carriers; rural women with breast cancer, patients suffering from dementia. Strategy 1: 2872 participants: oncology patients and families; diabetic patients; breast- feeding women; patients with back pain. Strategy 3: 1378 participants: retirement home nurses and patients; hypertensive patients; diabetic and non-diabetic children.	No details about settings. Were outpatients in general and with multiple conditions.	(1) support and help: 5 studies (1 USA, 1 England, 1 Sweden, 1 Canada, 1 Finland), (2) education and information: 4 studies (2 USA, 1 Canada), (3) telecommuni cation instead of on-site visiting:3 studies (USA)	Kalmar e-Health Institute and the Department of Health and Behavioral Science, Kalmar University, Sweden
Akl 2011a ¹	To evaluate the effects of attribute (positive versus negative) framing and of goal (gain	Yes	35 studies and 51 comparisons that included: Randomized controlled trials	October 2007	Positively or negatively framed and targeted messages.	16,342 participants (all health consumers). Topics: Cancer, sexual education, diet, prevention behaviors	Variables and included: graduate and undergraduate students, adults healthy, employees,	Not reported.	None

¹ Akl EA, Oxman AD, Herrin J, Vist GE, Terrenato I, Sperati F, et al. Framing of health information messages. Cochrane Database of Systematic Reviews. 2011(12):CD006777.

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
	versus loss) framing of the same health information, on understanding, perception of effectiveness, persuasiveness, and behavior of providers, policy makers, and consumers.		(44), quasi- randomized controlled trials (8),and cross-over study (1)			and high cholesterol.	low income neighborhoods, volunteers, beach goers, genetic counselling services, health clinics, women with abnormal Pap test or mammograms, patients with colorectal cancer or breast cancer, outpatient respiratory and cardiac clinics.		
Akl 2011b ²	To evaluate the effects of using alternative statistical presentations of the same risks and risk reductions on understanding, perception, persuasiveness and behaviour of health professionals, policy makers, and consumers.		35 studies reporting 83 comparisons. Randomized and non-randomized controlled parallel and cross-over studies were included. No study was conducted with policy makers.	October 2007	Statistical format in hypothetical scenario. Same evidence was presented in different formats to participants (Consumers, policymakers and providers). Risk (frequencies, percentages and probabilities); Risk reduction (RRR, ARR, NNT)	20 were conducted with health consumers, 14 with providers, and 1 with both. Consumers included patients, the general public, and students. Students of health professions were considered as consumers.	Hypothetical scenarios	Not consistently reported	Internal sources: State University of New York at Buffalo, NY, USA. Salary support, infrastructure; Italian National Cancer Institute, Regina Elena, Rome, Italy Salary support. External sources: Norwegian Research Council, Norway Salary support; HJS is funded by a European Commission: The human factor,

² Akl EA, Oxman AD, Herrin J, Vist GE, Terrenato I, Sperati F, et al. Using alternative statistical formats for presenting risks and risk reductions. Cochrane Database of Systematic Reviews. 2011(3):1-90.

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
									mobility and Marie Curie Actions. Scientist Reintegration Grant: IGR 42194 - GRADE. Salary support
Ammentor p 2013	To assess the health-related outcomes of life coaching interventions conducted with patients in the form of individual telephone coaching, individual face-to-face coaching, or coaching that combines some or all of these methods.		Studies were intervention studies using quantitative or qualitative methods to evaluate the outcome of the coaching or a combination of the methods. 5 studies (6 articles) were included - 2 RCTs, 1 case study, 1 prepost intervention study, and 1 intervention study (not clearly defined).	January 2013	Coaching: 6 to 14 sessions.	Diabetes patients were the focus of the intervention in three, patients with spinocerebellar degeneration were in one study and cancer patients in the last study. Four were in adults and one study was in adolescents.	Not clear. Two studies used telephone for coaching, and three used both face-to-face and telephone coaching, with one of these studies also using group coaching.	3 USA, 2 Japan, 1 Denmark	None declared. The authors declared that they have no competing interests. The affiliations of all authors are Universities.
Ammenwe rth 2012	Review the impact of electronic patient portals on patient care.		5 articles presented evaluations of 4 different patient portals. Study designs included 4 RCT and 1 retrospective matched- control study.	April 2012	Portal, e-mail. 2 to 13 months	(1) 180 patients undergoing IVF treatment, (2) 244 diabetes mellitus patients, (3) 81 patients with congestive heart failure and (4) 6402 general patients in the portal.	Patients from 4 different health services that have internet access.	Portals were located in: Netherlands (1); USA (3)	Partly supported by the COMET Center Oncotyrol which is funded by the Austrian Federal Ministries of BMVIT/BMWFJ (via FFG) and the Tiroler Zukunftsstiftung/ Standortagentur Tirol (SAT).

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Atherton 2012	To assess the effects of healthcare professionals and patients using email to communicate with each other, on patient outcomes, health service performance, service efficiency and acceptability.		Nine trials enrolling 1733 patients (Seven RCTs; two cluster- RCT)	July 2010	e-mail to communicate	Sample sizes ranged from n = 16 to n = 606 participants.	Studies were conducted in a variety of healthcare settings across primary, secondary (outpatient settings) and tertiary care (perioperative surgical settings for head and neck surgery), and in the community (rehabilitation center). Two studies were in physicians. Eight were set in urban areas and one in a mixed urban/rural population.	All studies were conducted in high income countries: USA (5), Norway (2), Canada (1), Australia (1).	Internal sources: Department of Primary Care and Public Health, Imperial College London, UK. NIHR Collaboration for Leadership in Applied Health Research & Care (CLAHRC) Scheme. External sources: Medical Research Council, UK. NHS Connecting for Health Evaluation Programme (NHS CFHEP 001), UK. National School of Primary Care Research, UK.
Bekker 2013	To examine the evidence to support the addition of personal stories to patient decision aid interventions.	Yes	11 articles reporting findings from 13 studies. Experimental (9 RCT), comparative no randomized (1) and quasi- experimental (1) studies comparing the effect of the PtDA intervention with and without a personal story component on	2005 to 2012	PtDAs designed to inform and support experiences of healthcare	The informed decision making: 1688 participants of general population, 1694 students. The informed choice: 2022 (489 African- American women) participants, general population. The informed engagement: 450 (149, low literacy; 301, high literacy) patients eligible for prostate cancer	Screening for prostate, breast, and colorectal cancers; treatment decisions between angioplasty / bypass surgery, mastectomy / breast conserving surgery, peritoneal dialysis / hemodialysis; and end-of-life level of care in cancer and in dementia. PtDA interventions were	The informed decision-making studies: 3 articles (2 USA, 1UK). The informed choice studies: 2 articles (USA). The informed engagement studies: 6	by an unrestricted grant from the Informed Medical

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
			people's healthcare decision making.			screening, 100 female patients with early stage breast cancer, 200 general population; 14 pairs of patients (and their caregiver) of general population, 76 participants of general population and 50 patients with malignant glioma.	delivered directly via access to web links or face-to-face with computer support.	articles (USA)	Administrative and editorial support was also provided by The University of Texas MD Anderson Cancer Center.
Berkman 2011	This is a HTA. Review the relationship of health literacy to various outcomes and disparities and interventions to improve low health literacy. Key Question 1. Outcomes: Are health literacy skills related to use of health care services, health outcomes, costs of health care, and disparities in health outcomes or health care service use? Key Question 2. Interventions: For individuals with low health literacy skills, what are the effective interventions?	Yes	81 studies (95 articles) addressed Key Question 1 and 42 studies (45 articles) addressed Key Question 2. These 42 studies were of good- or fair-quality: 27 RCTs, 2 cluster randomized trials, and 13 quasi-experimental studies.	May 2010	Interventions for health literacy using alternative document design or numerical presentation, additive or alternative pictorial representations, alternative media, and combination of alternative readability and document design. Counselling, flyers, labels, symbols, numerical information, tutorials.	The study populations have different proportions of individuals with low health literacy or low numeracy. Twenty-one studies examined the effect of interventions specifically in low-health-literacy subgroups. Other studies examined intervention effects in populations that included both low-and high-health-literacy or -numeracy individuals; these studies provide only supportive evidence about the effect of interventions to mitigate the effects of low literacy.	Primary care clinic, outpatient infectious disease clinic, urology clinic, university-based, urban tertiary care hospitals, nephrology clinic (public health clinic), two general medicine clinics/firms Institute for Human Development, households, urban outpatient clinics, family practice clinics affiliated with an urban academic teaching hospital, healthcare services, University-based graduate orthodontic clinics, diabetes education class at one Hospital, internal medicine outpatient	Mostly from USA. Others countries: UK, Canada, Germany, New Zealand. Some studies not reported.	The Agency for Healthcare Research and Quality (AHRQ), USA

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
							clinics, cardiology clinic, pediatric allergy clinic, clinics in a community health network, diverse settings: a faith-based organization, an adult basic education center, and a general internal medicine ambulatory care clinic, participants recruited in 3 hospital rheumatology departments, urban emergency		
Büchter 2014	The comparative effects of words versus numbers in communicating the probability of adverse effects or harms of treatments to consumers in written health information.		10 studies (7 articles) - all RCTs. Many studies used a factorial design.	November 2012	Words Vs numbers in risk communication (Hypothetical scenario). Leaflets on drugs for a particular condition	1736 participants, all volunteers. In all but one study participants were recruited from the general population or via a cancer website and confronted with a hypothetical scenario. Participants had a variety of educational backgrounds and all were adults.	department. Hypothetical, fictional or real scenarios. Treatment effects were communicated through written health information only	UK	The authors did not receive any funding for this work apart from their salary. All authors are purveyors and proponents of evidence based consumer health information.
Car 2011	To assess the effects of interventions for enhancing consumers' online health literacy (skills to search, evaluate and use online	Yes	Two studies, 1 RCT) and 1 controlled before and after (CBA)	March 2008.	Online health information addressing health literacy (skills to search, evaluate and use online health information). Groups of six to ten	470 participants. 1 RCT with 448 people living with HIV/AIDS (320 male; 116 female; 12 trans gender); (399 African American; 36 White American; 13	Both studies took place in specialist computer canters placed in community venues in the USA.	USA (2)	Partial financial contribution from The Department of Primary Care and Public Health, Imperial College

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
	health information).				participants "Adult education style", discussions, 90 to 120 min for 4 weeks. One study had 9 months of follow-up	other) and 1 CBA with 22 healthy adults (18 female and 4 male).			London. External sources: NHS Connecting for Health Evaluation Programme (NHS CFHEP 001), UK.
Cole-Lewis 2010	To assess the effectiveness of behavior change interventions for disease management and prevention delivered primarily through text messaging	Yes	12 studies represented by 17 articles. Nine RCT, 2 randomized crossover trials and one quasi- experimental trial.	June 2009	Text messaging, 3 to 12 months, 5 per day to 1/weekly, uni and bidirectional	2425 participants: 246 diabetic adolescents, 165 diabetic adults, 191 overweight adults, 1705 smokers, 16 asthmatics adults, 102 healthy adults. Gender was nearly equally distributed in most studies, with the exception of 3 studies in which females were greatly overrepresented or underrepresented.	General population in the disease prevention studies and from clinics in the disease management studies. Only one recruited healthy individuals, whereas the rest were targeted toward people with a specific disease or condition.	Canada (1), Finland (1), New Zealand (2), United States (2),France (1), South Korea (2), Scotland (1), Croatia (1), and Austria (1).	Supported by the National Institute of Mental Health (T32 MH020031)
Edwards 2000	To assess whether risk-communication interventions are associated with changes in patient knowledge, attitudes, and behaviors, and to identify aspects of these interventions that modify these effects.		51 studies were RCTs and 31 as non-RCTs. Note: study designs were not specified for inclusion criteria nor details given in results. 96 studies met inclusion criteria but only 82 were used in the meta-analysis.	1996	One to one risk communication (not necessarily face to face)	Of the 96 publications that fulfilled the inclusion criteria, 19 related to coronary heart disease risk, 15 to smoking, 14 to breast screening, 9 to HIV risk, 6 to accident prevention, 5 to cervical screening, and 28 others.	Settings included family practice, other primary care, secondary care, outreach (i.e., proactive seeking of patients), and workplace.	Not specified.	None specified.
Faber 2009	The review assessed 3 main questions: 1. What is the weight given to quality-of-care information by consumers in the	Yes	12 RCT, 2 CBA	January 2008	Quality of care information based on real or hypothetical performance. Three types (A, B, C). Report cards, mails, different	The participants were in a role of health care consumers, as opposed to patients seeking health care services. The number of participants	All studies were performed in the United States after 1993, the year in which the release of HEDIS (Health Plan	USA	None specified. All authors declared that they have no conflict of interest,

Author	Topic (Objectives)	Informed	Study designs	Date of most	Interventions*	Participants	Settings	Country(ies)	Financing source
		by theory /	included and	recent search					
		framework	number						
	process of choice?				formats (framing	ranged from 34 to	Employer Data and		including specific
	2. What is the effect				information, costs of	13,078 (the median	Information Set)		financial
	of the presentation				health plan,	number of participants	introduced the first		interests and
	format on consumer				highlighted	was 316).	systematic approach		relationships and
	choice based on				information, etc.)		for public reporting		affiliations
	quality-of-care						of health plans. In 4		relevant to the
	information?						studies, the		subject matter or
	3. What is the						experiment was		material
	influence of quality-						conducted in a real-		discussed in the
	of-care information						world setting, with		manuscript.
	on consumer choice						actual quality		Affiliations of
	in a real-world						information and		authors are
	setting?						dissemination of the		Universities.
							information by		
							personal mailings.		
							The other 10 studies		
							used laboratory		
							settings with		
							hypothetical quality		
							information. Except		
							for 2 studies that		
							used hospital		
							quality-of-care		
							information, settings		
							with quality-of-care		
							information within		
			00				HPs were studied.	!! (0)	
Finkelstein	The impact of health		327 articles that	July 2010	Health Information	Study populations have	KQ1a: Settings have	Australia(8),	Agency for
2012	information		were applicable to		Technologies	varied from as few as 10	included hospitals,	Austria(2),Bel	
	technology (IT) that		Key Questions 1			patients to more than	outpatient practices,	gium(1),Cana	Research and
	supports patient-		and/or 2—184			1,000. The studies have	and patients'	da(15),China(Quality U.S.
	centered care (PCC).		RCTs for Key			targeted physicians,	homes.KQ2: Studies	2),	Department of
	Key Questions: Key		Question 1, 206 for			nurses, and patients and	focused on a wide	Denmark(1),	Health and
	Question 1. Are		Key Question 2,			have used many	variety of clinical	Finland(3),	Human Services
	health IT		and 63 articles that			different types of health	conditions, including	France(3),	
	applications		were applicable to			IT. The interventions	diabetes mellitus,	Germany(6),	
	effective in		both Key			were addressed to many	cardiovascular	Greece(1),	
	improving the		Questions 1 and 2.			medical conditions.	disease, heart	India(1),	
	following outcomes,		The 206 articles				failure, COPD,	Israel(3),	

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		by theory /	included and	recent search		•	, and the second	' '	· ·
		framework	number						
	and how do the		addressing barriers				cancer, asthma,	Italy(6),	
	outcomes vary by		and facilitators				mental health, sickle	Japan(2),	
	type of health IT		were for the most				cell disease,	Korea	
	application? Key		part RCTs,				and chronic pain.	(Republic	
	Question 2. What		qualitative studies,					of)(1),	
	are barriers or		and usability					Netherlands(
	facilitators that may		studies. KQ3 and					9), New	
	impact		KQ4: scarce					Zealand(1),	
	implementation and		evidence.					Norway(6),	
	use of health IT							Portugal(1),	
	applications to							Singapore(1),	
	enable PCC? Key							Spain(4),	
	Question 3. What							Sweden(2),	
	knowledge or							Switzerland(
	evidence deficits							1),Taiwan(2),	
	exist regarding							England(31),	
	needed information							Northern	
	to support estimates							Ireland(2),	
	of cost, benefit,							Scotland(3,	
	impact,							Wales(1),	
	sustainability, and							USA (191)	
	net value with								
	regard to enabling								
	PCC through health								
	IT? Key Question 4.								
	What critical								
	information								
	regarding the impact								
	of health IT								
	applications								
	implemented to								
	enable PCC is								
	needed to give								
	consumers, their								
	families, clinicians,								
	and developers a								
	clear understanding								
	of the value								
	proposition								

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	particular to them?								
Fjeldsoe 2009	Analyzes the application of SMS for delivering health behavior change interventions.		14 studies (6 RCT, 1 a clustered randomized comparative trial, 1 randomized crossover trial, and six were pre–post design studies).	March 2008	Tailored SMS messages. 6 to 12 months, e-mail, interactive Website, self-monitoring or accelerometer, brochures	Smokers, healthy adults, adults, adolescents and pediatric diabetes patients, asthma patients, patients with uncontrolled hypertension and patients diagnosed with bulimia nervosa.	Outpatient clinics, public health clinics, Healthcare Centers, pediatric clinic, diabetes clinics, hospitals.	New Zealand, Washington DC, Bedfordshire United Kingdom, Korea, Finland, Scottish. Vienna, Austria. South Korea, Croatia, Spain, Toronto, U.S and England	No financial disclosures were reported.
Gagliardi 2016	To identify and describe effective strategies for Patient-mediated Knowledge Translation (PKT) during clinical encounters.	Yes	12 RCT, 4 cohort studies	September 2014	Patient mediated KT for clinical encounters. Including brochures, booklets, before or after consultation	3767 adults participants. All were arthritis and cancer patients from primary care clinics, hospitals or clinics and living homes.	Clinical encounters (outpatients with arthritis or cancer)	USA (10), UK (2), Canada (1), China (1), France (1), Netherlands (1)	The Canadian Institutes of Health Research
Gibbons 2009	1) Impact of Consumers Health Information (CHI) applications on health outcomes, and 2) barriers that clinicians, developers, consumers, and their families or caregivers encounter that limit utilization or	Yes	162 articles: 137 RCT for objective 1, 31 studies (24 non-validated surveys and 7 qualitative studies) for the objective 2, and 6 articles for both objective 1 and objective 2.	June 2009	Consumer health informatic (CHI). Interactive Websitebased app or Webbased tailored education Websites, Computer generated tailored feedback APP, interactive computer programs and personal monitoring devices	In terms of participant age groups, 77% (76/99) of studies reporting age of participants targeted adult CHI users. Approximately 12% of studies targeted adolescents/teens, 3% of studies targeted seniors and another 3% of studies targeted children, 5% of studies	In terms of intervention delivery setting or location, 58% of studies evaluated CHI applications that were used in the home or residence, a minority of evaluations were completed in schools (15%),	Not reported	Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services.

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
	implementation of CHI applications. Sub key Q1 outcomes: a) health care process outcomes, b) intermediate outcomes, c) relationshipcentered outcomes, d) clinical outcomes.					targeted participants from overlapping age groups. Of studies reporting the race of the participants 92% (49/53) of the studies employed populations that were greater than 50 percent white/Caucasian. There was only one study with greater than 50 percent African-American participants and no studies with a majority of participants who were Hispanic, American Indian/Alaska Native, or	clinical settings (17%), communities (3%), online (5%) or kiosks (2%).		
Health Quality Ontario 2013	Examine the impact of eTools for health information exchange in the context of care coordination for individuals with chronic diseases in the community.		A total of 11 citations were included (4 randomized controlled trials and 7 observational studies)	April 2012	Electronic Tools for Health Information Exchange, addressed to providers in the context of care coordination. Electronic medical records (eTools). Note: provider to provider, patients are indirectly involved	Asian/Pacific Islander. Mostly health service's staff in communication with other services attending different patients: with coronary artery disease (1); diabetes (7); heart failure (1); and multiple chronic conditions (2).	The eTools applied in each study were unique, as were the conditions under which they were applied. Some were used to coordinate care between hospital-based and outpatient/communi ty-based health care providers; some were applied in a community setting to help coordinate care between primary care physician and other health care professionals (e.g.,	Australia (1), Netherlands (1), United Kingdom (1), United States (8).	Ontario Government

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		by theory /	included and	recent search					_
		framework	number						
							nurses and		
							pharmacists); the		
							rest were applied in		
							multiple care		
							coordination efforts		
							and/or did not		
							specify their points		
							of care coordination		
							communication.		
Hoffman	Assess the ability of	Yes	19 studies (15	February	Fictional television.	One study had	Eight studies (42%)	USA (19)	Not reported
2017	medical television		surveys, 4	2015	Regular viewing habits	adolescent participants,	used overall regular		
	programs to affect		longitudinal -2			and the remaining	viewing habits as the		
	important public		RTC) Many			eighteen had adult (18+)	exposure, and seven		
	health outcomes		included studies			participants.	studies (37%) asked		
	such as viewers'		used convenience			Seven studies (37%)	participants whether		
	health-related		instead of random			enrolled students from	or not they saw		
	knowledge,		samples, because			college undergraduate	specific episode(s)		
	perceptions and/or		recruitment			courses, and no studies	as the exposure.		
	behavior.		advertisements for			assessed participants	Three (16%) studies		
			studies involving			aged 65 or above.	exposed		
			medical television			Not all studies reported	respondents to a		
			are likely to attract			the mean age of	specific clip or		
			viewers who may			participants, for those	episode in a		
			have more			who did, mean age was	classroom setting,		
			favorable views of			29 years.	and one study (5%)		
			medical television.			The number of	used both regular		
						participants per study	viewing habits and		
						ranged from 35 to 11	viewership of		
						555, with a mean of	specific episodes to		
						1659	define the exposure.		
						The percent of female	The scope was		
						participants ranged from	limited to shows		
						41 to 79%, excluding two	that feature health		
						studies that involved	professionals in a		
						only one gender.	professional setting.		
						Thirteen studies			
						reported participant			
						race/ethnicity, all but			
						one had a majority of]	

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
						Caucasian participants.			
Ketelaar 2011	To estimate the effects of publicly releasing performance data on changing the behavior of three target groups: healthcare consumers (patients), providers of healthcare (health professionals) and purchasers of healthcare.		Total 4 studies (Cluster- randomized controlled trial; cluster quasi- randomized trial; interrupted time series and Cluster- randomized trial)	2011	Publicly releasing regarding performance data about any aspect of the healthcare organizations or individuals. Three target groups: healthcare consumers (patients), providers of healthcare (health professionals) and purchasers of healthcare. In written or electronic form, with varying degrees of accessibility, such as a report in a publicly accessible library or more active dissemination directly to consumers in newspapers, leaflets, personal mailings, broadcasting media, etc.	Medicaid beneficiaries Medicaid beneficiaries: 5878 (Age: unclear and gender: men and women). Patients: treated for CABG in New York, and for AMI and post discectomy complications in California (Number of patients: unclear, age: unclear -children younger than 18 years were excluded- and gender: men and women). 15997 patients treated for AMI or CHF (Age: no restriction and gender: men and women)	Two studies were set in health plans. One study set in hospitals in California and New York and one study set in hospitals in Canada. One study was conducted in 35 of the 99 lowa counties. The second study was based on the New Jersey Medicaid programme. The third study was based in California. In Canada, evaluated the public release of performance data of 12 process-of-care indicators for AMI and six indicators for congestive heart failure (CHF) in 86 hospitals.	Three studies were conducted in the USA and one study was conducted in Canada.	
Kinnersley 2007	To assess the effects on patients, clinicians and the healthcare system of interventions which are delivered before consultations, and which have been designed to help patients (and/or		33 RCT with 8244 patients.	September 2006	Interventions before consultations	Patients and/or their representatives (or caregivers) of all ages before 'one-to-one' consultations with doctors or nurses in healthcare settings. Excluded: Individuals or groups attending	Primary care and hospital settings among patient with various conditions (number of studies): cancer (9), diabetes (2), cardiac problems (2), obstetric or gynecological	USA (18), Netherlands (2), Australia (4), Canada (2), UK (7), Indonesia (1)	Grant from the PPP Foundation (now known as the Health Foundation), Australia. Internal sources: Cardiff University, UK.

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	their representatives) address their information needs within consultations.					activities such as health promotion clinics (for example, antenatal classes) or in-patients for whom there were not specific subsequent identifiable consultations. Individuals consulting other healthcare professionals.	problems (2), mixed outpatients (1), women attending family planning clinics (1), women attending a well-baby clinic (1), children attending a pediatric clinic (1) and one on patients with peptic ulcers. In the study conducted in a pediatric setting, both children and their parents received interventions. Thirty studies reported on patients consulting physicians, two on patients consulting either physicians or nurses, and one on family planning care providers.		
Laranjo 2014	Effectiveness of interventions using social networking sites (SNSs) to change health behaviors	Yes	12 studies, 7411 participants. Three quasi-experimental and 9 RCT.	March 2013	Social networking (Facebook, Twitter), websites, + email. 21 days to 18 months	Not all studies reported age data, 3 recruited students and 2 involved young adults	The health domains covered were fitness, sexual health, food safety, smoking, and health promotion.	Australia (1), UK (1) and USA(10)	The Harvard Medical School- Portugal program (HMSP- ICJ/0005/2010; National Health and Medical Research Council (NHMRC) Centre of Research Excellence in Informatics and E-Health and the Portuguese

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
									Foundation for Science and Technology.
Loudon 2014	Identify and synthesize evidence of the public's attitudes towards clinical practice guidelines and evidence-based recommendations written for providers or the public, together with their awareness of guidelines.		26 studies (10 qualitative studies, 13 cross sectional and 3 RCT)	January 2013	CPG and evidence- based written recommendations including symbols and words	24887 participants. The age of participants ranged from 30 to over 76 years and one study on 11–15-year-old adolescents. Most studies included both genders although some included only women because of the topic (e.g. breast cancer).	Primary care, patient groups or with a special condition, websites, including caregivers. For instance: Canadian office workers, female careers in Maryland, USA, Londoners attending drop-in centers in the UK for patients with mental health problems, visitors to a welfare center in Seoul, women attending secondary care for menstrual abnormalities in Leicestershire, UK, and patients with Diabetes in Australia.	Canada (6), UK (4), Seoul (1), USA (10), Australia (4), Israel (1)	European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 258583 (DECIDE project).
Maher 2014	The effectiveness of online social network health behavior interventions.	Yes	10 Studies. Three key study: (1) large-scale evaluations of "live" interventions, with >1000 participants (four studies with sample sizes ranging from 545 to 107,907), (2)	December 12, 2012	Social network and equipment (scales)	113,988 participants. Adults or children regardless of health status (healthy or participants with specific health conditions or diseases). The studies typically reported high rates of female participation: on average 83.3% of participants were female.	Live trials (4), Community (2), University (2), Hospital nursing staff (1), and 1 not reported. The targeted health behaviors were diet/weight loss (n=2), physical activity (n=3), or a combination of	Australia (2), USA (5), Japan (2), UK (1)	University of South Australia Fellowship Support

Author	Topic (Objectives)	Informed	Study designs	Date of most	Interventions*	Participants	Settings	Country(ies)	Financing source
		by theory /	included and	recent search		•			
		framework	number						
			medium-scale,				diet/weight loss and		
			tightly-controlled				physical activity		
			randomized				(n=5). No eligible		
			controlled trials,				studies targeted		
			with				smoking or alcohol		
			approximately 100				consumption.		
			participants (four				Interventions		
			studies with				included commercial		
			sample sizes				online health social		
			ranging from 52 to				network websites		
		1	134) and (3) small				(n=2), research		
			pilot studies, each				health social		
			with 10				network websites		
			participants (two				(n=3), and multi-		
			studies). In all, five				component		
			studies were				interventions		
			randomized				delivered in part via		
			controlled trials				pre-existing popular		
			(RCT), one was a				online social		
			randomized cross-				network websites		
			over study, and				(Facebook n=4 and		
			four were single				Twitter n=1)		
			group pre-post						
			studies. Of the six						
			studies that						
			utilized a separate						
			control group or						
			arm (crossover						
			study), only one						
			had a "true" (ie,						
			no-intervention)						
			control, with the						
			others comparing						
		1	the online social						
			networking						
			intervention with						
		1	an alternative						
			intervention (in						
			five cases the						

Author	Topic (Objectives)	Informed	Study designs	Date of most	Interventions*	Participants	Settings	Country(ies)	Financing source
Author	Topic (Objectives)	by theory /	included and	recent search	interventions	Participants	Settings	Country(les)	Financing source
		framework	number	recent search					
	 	Haillework	alternative						
			intervention was						
			Web-based, and in						
			three cases the						
			alternative						
			internative						
			involved an online						
			social networking						
Mc	Communication and	Yes	component). 61 articles that	March 2013	Communication and	Adults (≥19 years),	KQ1: Participants	KQ1: From	RTI
		res		IVIAICII 2013			•	United States	
Cormack	dissemination		directly (i.e., head		dissemination	general public and	from community		
2010	strategies to		to head) compared		strategies. Face to	patients, clinicians,	health clinics, public	and Hong	University of
	facilitate the use of		strategies to		Face, electronic	children (<19 years),	housing, university	Kong. KQ2:	North Carolina
	health-related		communicate and		sources and	incarcerated	classrooms, low	from United	Evidence-based
	evidence. The review focused on three		disseminate		equipment (Scales).	populations, federal and	income	States,	Practice Center
			evidence. Nine		Narrative. Framing,	state policymakers	neighborhoods,	Canada,	(EPC) under
	primary objectives—		articles		Tailored and targeted	KQ1: Total 10,145	health care practice,	England,	contract to the
	comparing the		(representing 7		strategies	participants, KQ2: 14970	women veterans	Germany,	Agency for Healthcare
	effectiveness of: (1)		RCT) were to KQ 1;			participants from 21	and lay health	Australia.	
	communicating		42 articles			studies addressed to	workers.KQ2:	KQ3: from	Research and
	evidence in various		(representing 38			public/patients. KQ3:	participants from	United	Quality (AHRQ),
	contents and formats that		RCT) were relevant			5405 participants from 3 studies that included	community-based,	States,	Rockville, MD
			to KQ 2 and 21/38				parents or primary	Canada, and	
	increase the		relevant to			public/patients.	caregivers, veterans, members of	Switzerland.	
	likelihood that target		public/patients; 10						
	audiences will both		articles				participating church.		
	understand and use		(representing 2				KQ3: participants		
	the information (KQ		RCT,4 factorial				from Community-		
	1); (2) a variety of approaches for		RCT, 2 quasi- experimental and				based setting, academic and		
	* *		l '						
	disseminating		1 noncontrolled				community internal		
	evidence from those		trial) were relevant				medicine practices.		
	who develop it to		to KQ 3.						
	those who are		!						
	expected to use it		!						
	(KQ 2); and (3)		!						
	various ways of		!						
	communicating		!						
	uncertainty-								

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
	associated health-related evidence to different target audiences (KQ 3). A secondary objective was to examine how the effectiveness of communication and dissemination strategies varies across target audiences, including evidence translators, health educators, patients, and								
Moorhead 2013	clinicians. Uses, benefits, and limitations of social media for health communication among the general public, patients, and health professionals.		98 studies, 40 quantitative, 48 qualitative (including studies with content analysis presenting data with descriptive statistics), and 10 mixed methods. Quality was evaluated with the Downs and Black instrument, the maximum total score that could be achieved was 32, but the scores of the studies in this review ranged from 3 to 26. Overall, the studies scored low using	February 2012	Social media for health communication	The characteristics of users of social media were diverse, covering a range of different population groups. The age of the social media users ranged from school children to older adults aged 65 years and up, but the majority of the reported ages were 11-34 years. Some studies reported that there were more female than male users of social network sites. A few studies found that social media users were disproportionately from lower-income households. Studies within the United States reported that more	It was difficult to have the exact number of participants and their settings. Many studies reported participants but in other cases they reported number of Tweets, questions, comments, etc. Social media tools/applications (considered as "settings") within the 98 studies (Some studies included more than one social media tool/application).Th ere was a wide range of health topics, but the most	Scarcely reported. It is difficult when the object of study are the social media	Not reported

Author	Topic (Objectives)	Informed	Study designs	Date of most	Interventions*	Participants	Settings	Country(ies)	Financing source
		by theory /	included and	recent search					
		framework	number						
			this scale as they			social media users were	frequently reported		
			were mainly			African Americans than	on were sexual		
			exploratory and			no Hispanic Whites. It is	health, diabetes,		
			descriptive with			difficult to have the	flu/H1N1, and		
			three intervention			exact number of	mental health issues		
			studies and one			participants and their	such as stress or		
			RCT.			settings.	depression.		
							Facebook (n=13),		
							Blogs (n=13), Twitter		
							(n=8), YouTube		
							(n=7), MySpace		
							(n=5), Wikipedia		
							(n=3) , Wiki (n=2),		
							Quitnet / online		
							smoking cessation		
							support group (n=2),		
							Physician rating		
							website specified)		
							(n=2), Second Life		
							(n=1), Daily Strength		
							(n=1),		
							ArboAntwoord (n=1)		
							, Social media (tool		
							not specified)		
							(n=30), Web 2.0		
							application (not		
							specified) (n=11)		
Pires 2015	To review the		Twenty-two	February	Package leaflets	Exploratory studies with	Descriptions were	Not	Research
	readability of		studies and	2013	organized in clear and	the participation of	insufficient. In some	described	supported by the
	package leaflets of		comprised 16 full		comprehensive way	health professionals (2	cases, were clients		Fundação para a
	medicinal products		papers, three brief		about medicines,	studies): one study	of community		Ciência e
	for human use.		communications,		adverse effects,	included potential users	pharmacies in		Tecnologia,
			and three indexed		information in	and physicians and the	others, were from		Ministério da
			abstracts. The		different formats	other study included 40	associations of		Educação e
			studies were			patients, 6 physicians, 11	patients. Exploratory		Ciência, Portugal
			distributed as			pharmacists and 13 from	studies enrolling		(Process SFRH
			follows: two			associations of patients	health professionals,		/BD/76531/2011
			exploratory studies			and health professionals.	patients or potential		– Doctoral
			enrolling health			Exploratory studies with	users of medicines:		grant).

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
			professionals, 12 exploratory studies enrolling patients or potential patients who will use the medicines, and 8 descriptive studies.			the participation of potential users of medicines studies on patients' comprehension of drug adverse reactions two studies with a total of 321 participants. Exploratory studies with the participation of users or potential users of medicines comprehension (10 studies): With a total of approximately 4000 participants including: healthy men and with health problems, potential users, clients of community pharmacies and low-literate participants.	the majority of the reviewed readability studies used package leaflets of specific medicines, and highly utilized medicines such as acetaminophen.		
Revere 2001	Effectiveness of patient-interactive computer-generated health behavior interventions— clinical encounters "in absentia"—as extensions of faceto-face patient care. This review specifically examines the state of computer-generated or computer-operated therapeutic communications	Yes	37 studies: 3 Quasi- experimental, 28 RCT, 1 Feasibility study, 1 report, 4 other trials.	1999	patient-interactive computer-generated or computer operated health behavior interventions—clinical encounters "in absentia"—as extensions of face-to- face patient care	Mobile Communications: 50; Computer Systems: 961, Automated Telephone Communications: 1850 and Print Communications: 43868	Not reported	Not reported	Not reported

Author	Topic (Objectives)	Informed	Study designs included and	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
		by theory / framework	number	recent search					
Ryan 2014	To assess the effects	Yes	Overview of 28	March 2012	Interventions to	Participants were	The reviews	No	Cochrane
	of interventions		Cochrane reviews		promotes safe and	consumers and	included cross-	mentioned	Infrastructure
	which target		and 47 DARE		effective medicines	providers. Most studies	disease populations,		Grant provided
	healthcare		reviews. 32/75		use. Eight categories	involved adult	and there was a		by the National
	consumers to		reviews (43%)		defined the	participants. Seven	large spread of		Health and
	promote safe and		included only		interventions	reviews focused on older	acute and chronic		Medical
	effective medicines		randomized		according the	adults (60 years or	conditions		Research Council
	use, by synthesizing		controlled trials		developed taxonomy	older), while another	represented, as well		(NHMRC).
	review-level		(RCTs), other		(but 2 specific not	nine reviews	as interventions		Different
	evidence		studies: quasi-		were considered):	incorporated a wide	specifically		government
			randomized		1. Providing	range of ages that	addressing		agencies at
			controlled trials		information or	explicitly included older	immunization		Australia and
			(CCTs), controlled		education	with younger adults, and	uptake,		Canada paid
			before-and-after		2.Facilitating	one review included	contraceptive use,		researcher
			studies (CBAs),		communication and/or	children alone. Most	post-surgical pain		salaries
			interrupted time		decision making	studies focused on	relief and medicines		
			series (ITS) or		3.Acquiring skills and	people with a condition	for infectious		
			before-and-after		competencies	and/or taking medicines,	diseases. 46 reviews		
			(BA) studies		4.Supporting behavior	as opposed to careers,	evaluated		
					change	19 reviews included	interventions for		
					5. Support	studies with careers.	medicines use in		
					6.Consumer system	Healthcare professionals	relation to a		
					participation.	were included as	particular medical		
					Interventions: 1)	recipients of the	condition.		
					Written information,	intervention alongside			
					fact sheets, booklets,	consumers in 22			
					newsletters,	reviews. Twenty-one			
					educational videos,	reviews included			
					support, counselling	children together with			
					2) Written action	older participants.			
					plans, on-to-one				
					consultation, written				
					question lists for				
					providers; provider-				
					patient				
					communication skills				
					training				
					3) Skills training, self-				
					management				

Author	Topic (Objectives)	Informed	Study designs	Date of most	Interventions*	Participants	Settings	Country(ies)	Financing source
		by theory /	included and	recent search			0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
		framework	number						
					4) provider-led				
					services for patients,				
					reminders,				
					appointment cards,				
					medicines charts,				
					alarms, memory aids,				
					patient reminder or				
					recall systems (such as				
					letters, postcards,				
					telephone follow-up,				
					reminders with or				
					without outreach)				
					5) Counselling (group				
					or individual,				
					structured) and				
					support , therapy				
					(family intervention,				
					psychological therapy,				
					cognitive behavioral				
					therapy, motivational				
					interviewing, group				
					programs (peer				
					support and shared				
					identification)				
					6) Consumer				
					involvement in				
					developing patient				
					medicines information, medicines policy or				
					guideline committee				
					involvement				
Sawesi	To determine (1) the	Yes	170 articles	Publication	Different categories of	Sample sizes ranged	Not reported	The majority	Not reported
2016	impact of	163	included,	years ranged	IT platforms (including	from 1-22,337 subjects.	ivot reported	of studies	ivot reported
2010	information		dominated by RCT	from 2000 to	Internet-based	nom 1-22,337 subjects.		were	
	technology (IT)		(65.9%, 112/170).	2014, with an	interventions, mobile-			implemented	
	platforms used to		Case study (4 %),	overall	based interventions,			in high	
	promote patient		Cohort study	increase in	social media , video			income	
	engagement and to		(11,2%), Cross-	articles	game technology , and			countries	
	effect change in		sectional (8,8%),	published	telemonitoring). 1			correspondin	
	Chect change in	l	3000001a1 (0,0/0),	Published	telemonitoring). I	1	1	correspondin	<u> </u>

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
	health behaviors and health outcomes, (2) behavioral theories or models applied as bases for developing these interventions and their impact on health outcomes, (3) different ways of measuring health outcomes, (4) usability, feasibility, and acceptability of these technologies among patients, and (5) challenges and research directions for implementing IT platforms to meaningfully impact patient engagement and health outcomes.		Quasi- experimental (10%)	more recently (21.8%, 37/170 in 2014).	week to 48 months			g to United States the 54.7% (93/170). Just 1 study from Kenya and 1 from Chile.	
Sawmynad en 2012	To assess the effects of email for the provision of information on disease prevention and health promotion, on outcomes for healthcare professionals, patients and caregivers, and health services, including harms.		Nine articles reporting six studies. Six RCT were included in qualitative synthesis, and 2 of them included in meta-analysis	2010	e-mail vs standard mail or standard care. Encrypted or Web messaging. For prevention, promotion or information. Weekly to six months	8372 participants. All participants were adults, in five studies they were patients and in one, they were caregivers. All participants needed to have e-mail access.	Primary care (1); secondary or tertiary care studies - hospital-owned health and fitness facility (1); outpatient clinics (4).	USA (5); UK (1).	Internal sources: eHealth Unit, Imperial College, UK, the NIHR (CLAHRC) Scheme, Department of Family Medicine, University of Ljubljana, Slovenia, NHS Education for Scotland, UK, NHS Connecting for Health

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
									Evaluation Programme (NHS CFHEP 001). External sources: Medical Research Council, UK.
Sharma 2017	The impact of interventions involving patient advisory councils on clinical care outcomes, patient safety, and patient satisfaction, compared to care that doesn't involve patient advisors. The secondary aim was to survey the impact patient advisors have on healthcare changes such as priority-setting, patient materials, and impacts on patient advisors themselves.		N=32, including: 1 cRCT, 4 describe a set of quasi-experimental quality improvement initiatives from one practice group, 1 systematic review, 1 cross-sectional survey, 9 qualitative or ethnographic studies, and 16 case studies	August 2015	Patient advisory council (consumer working with healthcare staff): meetings 2 to 4 times per year. Face-to-face meetings, virtual meetings, focal groups, e-mail, communications) i.e.: Patients advisory, Community advisory council, AD-Hoc Committee, experience-based, co- design	Mostly patients (and families), including in: Patient Advisory Council (11 studies), Community Advisory Council (4), Adhoc Patient Committee (8), Experience-based co-design (4), Other (5).	Inclusion criteria spanned all healthcare settings, including primary care, ambulatory specialty care, inpatient care, emergency department and long-term care. Patient engagement at the clinic or organizational level was included.	15 UK, 8 USA, 4 Canada, 4 Australia/NZ, and 1 Sweden	NRSA Award T32HP19025 & Kaiser Permanente National Community Benefit Fund of the East Bay Community Foundation #20152632.
Shipper 2016	To assess what dissemination strategies are feasible to inform and educate patients about recommendations or guidelines.		22 studies: 12 expert opinion 4 qualitative research 1 RCT	February 2016	Guideline dissemination consists of a combination of active and passive methods: Using Websites, email notices, interactive internet-based lectures, telephone- based coaching, personal stories of	Not described	Different settings, diseases mainly about the field of rheumatology, asthma/COPD and diabetes and, participants including in the developing clinical practice guidelines.	Canada 7 Europe 7 USA 5 Russia 1 Africa 1	EULAR European League Against Rheumatism funds

Author	Topic (Objectives)	Informed by theory /	Study designs included and	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
		framework	number						
					patients in media,				
					electronic point-of-				
					care tools, templates,				
					laboratory prompts				
					and a communications				
					campaign, interactive				
					decision support				
					algorithms. Training				
					and support with				
					learning tools				
					(newsletters,				
					brochures, posters,				
					summaries, handouts,				
					pocket cards,				
					standardized slide				
					sets), support groups,				
					workshops, events,				
					seminars, annual				
					conferences, local or				
					regional events, events				
					for professionals				
					and/or patients, press				
					releases, print-ready				
					ads, flow sheets				
					didactic educational				
					meetings, availability				
					of cross-cultural				
					adaptations, providing				
					lay versions. Also, the				
					establishment of				
					permanent groups,				
					networks or 'virtual				
					panels' of patients to				
					disseminate				
					guidelines. The use of				
					knowledge brokers				
					(KB) as other strategy.				
Smaihodzic	The effects of social	Yes	22 Articles, nine	March 2015	Social media	Patients users of social	Social media	1556	None
2016	media use for health		quantitative, seven	1			platform and	participants	

Author	Topic (Objectives)	Informed by theory /	Study designs included and	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
		framework	number						
	related reasons on patients and their relationship with healthcare professionals	Tramework	qualitative and six mixed methods studies. No experimental studies.			(adult and children) and 5400 posts (4 studies).	Condition: Blogs - Unknown (1), Blogs - Chronic(1), Facebook/Twitter - Obesity (1), Facebook - Mental (2), Facebook - Contraceptives (1), YouTube - Chronic (1), Online support community - Unknown (2), Online support community - Mental (1), Online support community - Chronic (10), Forum - Unknown (1), Forum - Mental (1), Virtual reality - Chronic (1)	were from 5 countries: Australia, Germany, Japan, Korean, USA, Taiwan. The remained 2953 came from online communities , networks, support groups and social media.	
Stacey 2012	To explore characteristics and effectiveness of decision coaching evaluated within trials of patient decision aids (PtDAs) for health decisions.		10 RCT	2015	Decision coaching, some interventions included PtDAs. Median of individual coaching: 45 min, group coaching median 90 min for 3 sessions	2625 participants of (women and men).The mean number of participants per trial was 242 (range 43–625).	Hospital, inpatients, Primary care, Specialty care, community	US, Canada, UK, Germany	Authors received funding for research from the not-for-profit Foundation for Informed Medical Decision Making (FIMDM).
Stacey 2017	To assess the effects of decision aids (PtDA) in people facing treatment or screening decisions. (This update compared only decision aids with usual care, being removed the		105 RCT involving 31,043 participants (this update added 18 studies and removed 28 previously included studies comparing detailed versus simple decision aids).	2015	PtDAs with: information, probabilities, steps for decision-making, clarify values, examples of other's experiences. Included booklet, pamphlet, counselling, brochures, leaflet and electronic	Adults aged 18 years or older who made decisions about screening or treatment options.	The PtDA were set for screening or treatment of health conditions.	Australia (10 studies) Canada (15 studies) China (1 study) Finland (2 studies) Germany (6 studies)	The authors had financial support from the not-for-profit Informed Medical Decisions Foundation (IMDF)

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
	comparation between single or multiple decision aids.)				resources			Netherlands (2studies) Spain (1 study) Sweden (1 study) UK (16 studies) USA (50 studies) Australia plus Canada (1 study)	
Sustersic 2016	Summarize the diverse reviews, both general and specific to given conditions that use PILs (literature reviews, systematic reviews and meta-analyses), made to date. Clarify the impact of PILs by evaluating their effect on main outcomes, and specify their prescription according to condition and terms of use. Propose a checklist for writing, designing and using PILs with recommendations, for the standardization of research protocols	Yes	This is an overview with 24 studies: 17 systematic reviews; 6 literature reviews; 1 meta-analysis.	August 2015	PILs before consultation, screening or surgery, medication information. Webpages, compute-linked, audiotapes, interactive videos, AIDs, counselling, teaching interventions.	Patients undergoing treatment for general conditions, cancers, acute diseases, chronic diseases and before an intervention.	The principle targets of PILs were drug treatments, invasive procedures (such as surgery or colposcopy, screening and cancer). Very few articles concern acute pathologies or general medicine.	Not informed	None

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
	that assess PILs.								
Vernooij 2016	To characterize effective types of self-management interventions that could be packaged as resources in (i.e., appendices) or with guidelines (i.e., accompanying products). The secondary purpose of this review was to assess whether single-component self-management interventions were as effective as multifaceted self-management interventions.		Seventy-seven studies were included	February 2015	Packaged resources or CPG: educational sessions, self-directed guides, or counseling (brief in-person or virtual interaction during which providers and/or lay leaders provided patients with recommendations, reminders or encouragement).	Not described	Eligible reviews addressed a wide range of clinical topics that were categorized as metabolic conditions which were all related to diabetes (23, 29.9 %); musculoskeletal conditions such as arthritis and back pain (12, 15.6 %); reviews of a variety of chronic conditions (12, 15.6 %); cardiovascular conditions such as angina, hypertension, heart disease, and stroke (11, 14.3 %); pulmonary conditions such as asthma and chronic obstructive pulmonary disease (7, 9.1 %); other conditions such as cancer pain, irritable bowel syndrome, epilepsy, multiple sclerosis, and kidney disease (7, 9.1 %); and mental illness including anxiety and depression (5,	China(1)Neth erlands(1)No t reported(75) United States(1)	None

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
							6.5 %).		
Vodopivec 2012	To assess the effects of mobile phone messaging interventions as a mode of delivery for preventive health care on health status and health behavior outcomes.		RCT 4	June 2009	SMS and Multimedia Messaging Service (MMS) for preventive and health behavior. Daily to every three days; six to 12 weeks of follow-up	Pregnant women (2), Children (1), Mixture of Smokers (1). The use of SMS messaging was applied to four different clinical areas: adherence to preventive medication, prenatal support, smoking cessation, and health behaviors. Participants in three studies were people in the community and in one study healthy pregnant women attending an ambulatory antenatal clinic. The target group for the intervention varied. The age and gender of participants were variable. One study included only women. Participants came from different income levels	guidelines University students, healthy pregnant in antenatal care, smokers from community and children from community.	Canada, Thailand, New Zealand, USA	Ministry of Higher Education, Science and Technology, Slovenia.
Wantland 2004	To provide further information on patient/client knowledge and behavioral change outcomes after Web-based interventions as compared to outcomes seen after implementation of	Yes	22 studies (16 Randomized study - 3 convenience sample - 1 longitudinal randomized case control pre-post study - 1 descriptive study - 1 longitudinal study)	December 2003	Web-based. 2.6 logons per person per week. Three to 78 weeks of follow-up. One-time Web-participant health outcome studies compared to non-Web participant health outcomes, self-paced interventions	and ethnicities. Aggregation of data from the 22 selected studies showed a total of 11,754 participants in both the Web-based and non-Web-based interventions. Of this total, 5,841 were women and 5,729 were men. The average age of participants was 41.5	Clinic and clinic/home based studies across many clinical areas or disorders of interest.	The selected studies were performed in the United States, France, Japan, Italy, Spain, Netherlands, Sweden, and Germany.	Not described

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
	non-Web-based					years.			
	interventions.		20.20			- · · · · · · · · · · · · · · · · · · ·			
Wilson 2012	Evaluate the evidence regarding the relative effectiveness of multimedia and print as modes of dissemination for patient education materials; examine whether development of these materials addressed health literacy.		30 RCT	November 2010	Multimedia and print as modes of dissemination for patient education materials. Electronic sources and oral communication, prints, booklets	Patients from diverse context and with many conditions. Sample sizes not reported.	Settings were diverse, ranging from primary care to specialty practice and from home to community-based care.	Not reported	This comparative analysis of print and multimedia health materials were funded, in part, by a grant from the Foundation for Informed Medical Decision Making (PI: Dr. Makoul).
Yamada 2015	Evaluate the effectiveness of toolkits as a knowledge translation (KT) strategy for facilitating the implementation of evidence into clinical care. Toolkits include multiple resources for educating and/or facilitating behaviour change.		All study designs were included. Total 39 (11 RCTs, 13 cohort studies, 15 others. We just included the description of the 2 studies (RCTs) addressing toolkits to patients/caregivers	November 2013	Toolkits: self-test, sheets, books, CDs, Audio CDs, booklets, mail	Participant of the two studies described, with focus on recipient health care. Patients with arthritic conditions: 921 adults with osteoarthritis, rheumatoid arthritis, fibromyalgia or chronic joint symptoms Caregivers of patients with Alzheimer's: 108 dyads of patients with progressive dementia of Alzheimer's type/caregiver.	Among all of the toolkits, 20 were developed for a specific disease context, most commonly for cancer (n=8) and diabetes (n=3). The remaining toolkits were developed for disease prevention (n=5), infection prevention (n=2), postoperative pain (n=1), smoking cessation (n=1), care in the geriatric population (n=8), patient safety (n=1) and general hospital quality improvement (n=1). Two studies	USA (2)	None

Author	Topic (Objectives)	Informed by theory / framework	Study designs included and number	Date of most recent search	Interventions*	Participants	Settings	Country(ies)	Financing source
							targeted to patients/caregivers: a) patients with Alzheimer and their caregivers were enrolled from geriatric specialty clinics, b) the arthritic patients receipt the toolkit by mail.		
Zhao 2016	To examine the effectiveness of mobile phone apps in achieving health-related behavior change in a broader range of interventions.	Yes	23 studies used RCT design, except one case-control study.	June 2015	Mobile-phone based app, video, SMS, Computer Groups, bibliotherapy. 19 days to 12 months, follow up between 3 weeks to 6 months	Adult population	Health care settings without specification.	All studies were conducted in high-income countries, 10 in the United States, 3 in Australia, 2 in the United Kingdom and Sweden, respectively, and 1 each in South Korea, Italy, New Zealand, Spain, Switzerland, and the Netherlands.	Not reported

^{*} For more details about interventions see Tables 2 and 3 in Additional file 5

Table 2. Quality of included systematic reviews (AMSTAR)

Reference	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Total of
												'Yes' scores

Reference	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Total of 'Yes' scores
Abu Abed 2014	No	Yes	Yes	No	No	Yes	Yes	No	Yes	No	No	5/9
Akesson 2006	No	No	Yes	No	No	Yes	Yes	No	NA	No	No	4/10
Akl 2011 a	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	9/11
Akl 2011 b	Yes	No	10/11									
Ammentorp 2013	No	Yes	Yes	Yes	No	Yes	Yes	Yes	NA	No	No	6/10
Ammenwerth 2012	No	Yes	Yes	Yes	Yes	Yes	Yes	No	NA	No	No	6/10
Atherton 2010	Yes	No	10/11									
Bekker 2013	No	Yes	Yes	Yes	No	Yes	No	No	Yes	No	No	5/11
Berkman 2011	No	Yes	NA	No	No	7/10						
Büchter 2014	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	7/11
Car 2011	Yes	NA	NA	No	8/9							
Cole-Lewis 2010	Yes	Yes	Yes	No	No	Yes	Yes	Yes	NA	NA	No	6/9
Edwards 2000	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	7/11
Faber 2009	No	Yes	Yes	No	No	Yes	Yes	Yes	NA	NA	No	5/9
Finkelstein 2012	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	No	Yes	8/10
Fjeldsoe 2009	No	Yes	Yes	No	Yes	Yes	No	No	NA	No	No	4/10
Gagliardi 2016	Yes	Yes	Yes	No	No	Yes	Yes	Yes	NA	No	No	6/10
Gibbons 2009	Yes	NA	NA	No	8/9							
Health Quality Ontario 2013	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	No	6/10
Hoffman 2017	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	No	7/11
Ketelaar 2011	Yes	No	NA	NA	Yes	7/9						

Reference	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Total of 'Yes' scores
Kinnersley 2007	Yes	No	10/11									
Laranjo 2014	Yes	No	10/11									
Loudon 2014	No	Yes	Yes	Yes	No	Yes	Yes	Yes	NA	NA	No	6/9
Maher 2014	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	8/11
Mc Cormack 2010	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	No	Yes	8/10
Moorhead 2013	No	Yes	Yes	No	Yes	Yes	Yes	Yes	NA	No	No	6/9
Pires 2015	No	No	Yes	No	No	Yes	No	Yes	Yes	No	No	4/11
Revere 2001	No	No	Yes	Yes	No	Yes	Yes	No	No	No	No	4/11
Ryan 2014	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	NA	Yes	8/10
Sawesi 2016	No	Yes	No	No	No	Yes	Yes	Yes	Yes	No	No	5/11
Sawmynaden 2012	Yes	No	10/11									
Sharma 2017	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	8/11
Shipper 2016	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	10/11
Smaihodzic 2016	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	No	6/11
Stacey 2012	Yes	No	10/11									
Stacey 2017	Yes	No	10/11									
Sustersic 2016	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	9/11
Vernooij 2016	Yes	Yes	Yes	No	No	Yes	Yes	Yes	NA	No	Yes	6/10
Vodopivec 2012	Yes	No	10/11									
Wantland 2004	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	No	6/11

Reference	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Total of 'Yes' scores
Wilson 2012	No	Yes	Yes	Yes	No	Yes	No	NA	No	No	No	4/10
Yamada 2015	No	Yes	Yes	Yes	No	Yes	Yes	Yes	NA	No	No	6/11
Zhao 2016	No	Yes	NA	No	Yes	8/10						

AMSTAR Questions: Q1) Was an 'a priori' design provided?, Q2) Was there duplicate study selection and data extraction?, Q3) Was a comprehensive literature search performed?, Q4) Was the status of publication (i.e. grey literature) used as an inclusion criterion?, Q5) Was a list of studies (included and excluded) provided?, Q6) Were the characteristics of the included studies provided?, Q7) Was the scientific quality of the included studies used appropriately in formulating conclusions?, Q9) Were the methods used to combine the findings of studies appropriate?, Q10) Was the likelihood of publication bias assessed?, Q11) Was the conflict of interest stated?.