

Supplementary file 1: Search strategy

This Supplementary file provides the search strategy details, performed March 26, 2021.

1. Pubmed	
#1	Search: (((((((((((message framing[Title/Abstract]) OR (message fram*[Title/Abstract])) OR (information framing[Title/Abstract])) OR (information fram*[Title/Abstract])) OR (gain-framed[Title/Abstract])) OR (loss-framed[Title/Abstract])) OR (gain fram*[Title/Abstract])) OR (loss fram*[Title/Abstract])) OR (positive frame[Title/Abstract])) OR (positive fram*[Title/Abstract])) OR (negative frame[Title/Abstract])) OR (negative fram*[Title/Abstract])) OR (goal fram*[Title/Abstract])) OR (framing effect*[Title/Abstract])
#2	Search: (((((((((((((((((((((((Heart disease[MeSH]) OR (Cardiovascular disease[MeSH])) OR (Heart Failure[MeSH])) OR (Hypertension[MeSH])) OR (Stroke[MeSH])) OR (Diabetes Mellitus[MeSH])) OR (Metabolic syndrome[MeSH])) OR (Neoplasms[MeSH])) OR (Pulmonary Disease, Chronic Obstructive[MeSH])) OR (Lung Diseases[MeSH])) OR (Alzheimer disease[MeSH])) OR (Dementia[MeSH])) OR (Asthma[MeSH])) OR (Hepatitis[MeSH])) OR (Fatty Liver[MeSH])) OR (Kidney diseases[MeSH])) OR (Pain[MeSH])) OR (Psoriasis[MeSH])) OR (Fibromyalgia[MeSH])) OR (Multiple Sclerosis[MeSH])) OR (Arthritis[MeSH])) OR (Osteoporosis[MeSH])) OR (((Noncommunicable Diseases[MeSH]) OR (Comorbidity[MeSH])) OR (Multimorbidity[MeSH])) OR (Chronic disease[MeSH])) OR (Chronic illness[MeSH]))
#3	Search: (((non communicable[Title/Abstract]) OR (noncommunicable[Title/Abstract])) OR (NCD[Title/Abstract])) OR (comorbidity[Title/Abstract])) OR (multimorbidity[Title/Abstract])) OR (chronic disease[Title/Abstract])) OR (chronic condition[Title/Abstract])) OR (chronic illness[Title/Abstract])) OR (long term condition[Title/Abstract])) OR (long term ill[Title/Abstract])) OR (cardi*[Title/Abstract])) OR (heart disease[Title/Abstract])) OR (cardiovascular disease[Title/Abstract])) OR (Heart Failure[Title/Abstract])) OR (high blood pressure[Title/Abstract])) OR (hypertension[Title/Abstract])) OR (Stroke[Title/Abstract])) OR (diabet*[Title/Abstract])) OR (Diabetes[Title/Abstract])) OR (metabolic syndrome[Title/Abstract])) OR (cancer[Title/Abstract])) OR (neoplasm[Title/Abstract])) OR (chronic obstructive pulmonary disease[Title/Abstract])) OR (chronic respir*[Title/Abstract])) OR (Lung Diseases[Title/Abstract])) OR (respiratory disease*[Title/Abstract])) OR (Alzheimer disease[Title/Abstract])) OR (dementia[Title/Abstract])) OR (psoriasis[Title/Abstract])) OR (Asthma[Title/Abstract])) OR (Hepatitis[Title/Abstract])) OR (Fatty Liver[Title/Abstract])) OR (Kidney disease*[Title/Abstract])) OR (Pain[Title/Abstract])) OR (Fibromyalgia[Title/Abstract])) OR (multiple sclerosis[Title/Abstract])) OR (Arthritis[Title/Abstract])) OR (Osteoporosis[Title/Abstract])
#4	#2 OR #3
#5	#1 AND #4 Filters: English

	Items found: 288
2. Web of Science	
#1	message framing (TS) or message fram* (TS) or information framing (TS) or information fram* (TS) or gain-framed (TS) or loss-framed (TS) or gain fram* (TS) or loss fram* (TS) or positive frame (TS) or positive fram* (TS) or negative frame (TS) or negative fram* (TS) or goal fram* (TS) or framing effect* (TS)
#2	non communicable (TS) or noncommunicable (TS) or NCD (TS) or comorbidity (TS) or multimorbidity (TS) or chronic disease (TS) or chronic condition (TS) or chronic illness (TS) or long term condition (TS) or long term ill (TS) or cardi* (TS) or heart disease (TS) or cardiovascular disease (TS) or Heart Failure (TS) or high blood pressure (TS) or hypertension (TS) or Stroke (TS) or diabet* (TS) or Diabetes (TS) or metabolic syndrome (TS) or cancer (TS) or neoplasm (TS) or chronic obstructive pulmonary disease (TS) or chronic respir* (TS) or Lung Diseases (TS) or respiratory disease* (TS) or Alzheimer disease (TS) or dementia (TS) or psoriasis (TS) or Asthma (TS) or Hepatitis (TS) or Fatty Liver (TS) or Kidney disease* (TS) or Pain (TS) or Fibromyalgia (TS) or multiple sclerosis (TS) or Arthritis (TS) or Osteoporosis (TS)
#3	#1 AND #2 Filters: English; Not conference abstract/review Items found: 1385
3. CINAHL	
S1	TI message framing OR TI negative fram* OR TI negative frame OR TI information framing OR TI message fram* OR TI information fram* OR TI loss-framed OR TI gain fram* OR TI gain-framed
S2	TI loss fram* OR TI positive frame OR TI positive fram* OR TI goal fram* OR TI framing effect*
S3	AB message framing OR AB message fram* OR AB information framing OR AB gain-framed OR AB information fram* OR AB loss-framed OR AB gain fram* OR AB loss fram*
S4	AB positive frame OR AB positive fram* OR AB negative fram* OR AB negative frame OR AB goal fram* OR AB framing effect*
S5	S1 OR S2 OR S3 OR S4
S6	TI non communicable OR TI noncommunicable OR TI NCD OR TI comorbidity OR TI multimorbidity OR TI chronic illness OR TI long term ill OR TI chronic disease OR TI long term condition OR TI chronic condition OR TI cardi* OR TI heart disease
S7	AB non communicable OR AB NCD OR AB noncommunicable OR AB comorbidity OR AB multimorbidity OR AB chronic illness OR AB chronic disease OR AB chronic condition OR AB long term condition OR AB long term ill OR AB cardi* OR AB heart disease
S8	TI cardiovascular disease OR TI high blood pressure OR TI hypertension OR TI Heart Failure OR TI Stroke OR TI diabet* OR TI Diabetes OR TI metabolic syndrome OR TI chronic obstructive pulmonary disease OR TI chronic respir* OR TI cancer OR TI neoplasm
S9	AB cardiovascular disease OR AB Heart Failure OR AB high blood pressure OR AB hypertension OR AB Stroke OR AB diabet* OR AB Diabetes OR AB metabolic

	syndrome OR AB cancer OR AB neoplasm OR AB chronic obstructive pulmonary disease OR AB chronic respir*
S10	TI Lung Diseases OR TI respiratory disease* OR TI Alzheimer disease OR TI dementia OR TI psoriasis OR TI Asthma OR TI Hepatitis OR TI Fatty Liver OR TI Kidney disease* OR TI Pain OR TI Fibromyalgia OR TI multiple sclerosis
S11	AB Lung Diseases OR AB respiratory disease* OR AB Asthma OR AB Kidney disease* OR AB Alzheimer disease OR AB dementia OR AB psoriasis OR AB Hepatitis OR AB Fatty Liver OR AB Pain OR AB Fibromyalgia OR AB multiple sclerosis
S12	TI Arthritis OR TI Osteoporosis OR AB Arthritis OR AB Osteoporosis
S13	S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12
S14	S5 AND S13 Filter: English, Human, Adult Items found: 472
4. PsycINFO	
S1	TI message framing OR TI message fram* OR TI information framing OR TI information fram* OR TI loss-framed OR TI gain-framed OR TI gain fram* OR TI loss fram* OR TI positive frame OR TI positive fram* OR TI negative frame OR TI negative fram*
S2	AB message framing OR AB message fram* OR AB information framing OR AB information fram* OR AB loss-framed OR AB gain-framed OR AB gain fram* OR AB loss fram* OR AB positive frame OR AB positive fram* OR AB negative frame OR AB negative fram*
S3	AB goal fram* OR AB framing effect* OR TI goal fram* OR TI framing effect*
S4	S1 OR S2 OR S3
S5	TI non communicable OR TI noncommunicable OR TI NCD OR TI comorbidity OR TI multimorbidity OR TI chronic disease OR TI long term condition OR TI chronic condition OR TI chronic illness OR TI long term ill OR TI cardi* OR TI heart disease
S6	AB non communicable OR AB noncommunicable OR AB NCD OR AB comorbidity OR AB multimorbidity OR AB chronic disease OR AB long term condition OR AB chronic condition OR AB chronic illness OR AB long term ill OR AB cardi* OR AB heart disease
S7	AB cardiovascular disease OR AB Heart Failure OR AB high blood pressure OR AB hypertension OR AB Stroke OR AB diabet* OR AB Diabetes OR AB metabolic syndrome OR AB cancer OR AB neoplasm OR AB chronic obstructive pulmonary disease OR AB chronic respir*
S8	TI cardiovascular disease OR TI Heart Failure OR TI high blood pressure OR TI hypertension OR TI Stroke OR TI diabet* OR TI Diabetes OR TI metabolic syndrome OR TI cancer OR TI neoplasm OR TI chronic obstructive pulmonary disease OR TI chronic respir*
S9	TI Lung Diseases OR TI respiratory disease* OR TI Alzheimer disease OR TI dementia OR TI psoriasis OR TI Asthma OR TI Hepatitis OR TI Fatty Liver OR TI Kidney disease* OR TI Pain OR TI Fibromyalgia OR TI multiple sclerosis
S10	AB Lung Diseases OR AB respiratory disease* OR AB Alzheimer disease OR AB dementia OR AB psoriasis OR AB Asthma OR AB Hepatitis OR AB Fatty Liver OR AB

	Kidney disease* OR AB Pain OR AB Fibromyalgia OR AB multiple sclerosis
S11	AB Arthritis OR AB Osteoporosis OR TI Arthritis OR TI Osteoporosis
S12	S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11
S13	S4 AND S12 Filter: English, Human, Adult Items found: 108