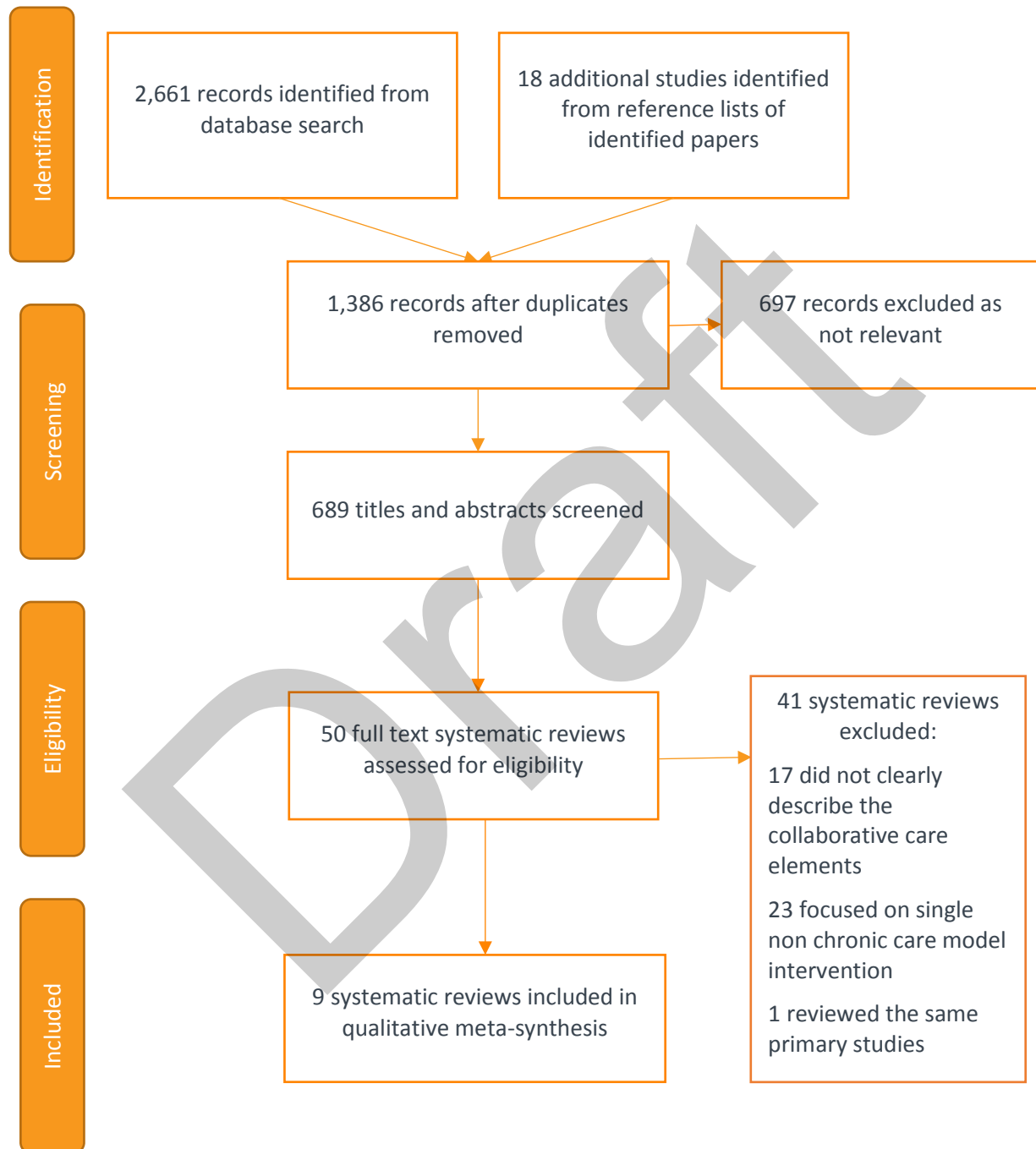


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APPENDICES

Appendix 1: PRISMA flowchart of Stage 2



Appendix 2: Systematic review characteristics

Reference (year) Country	N databases searched (searched date range)	Inclusion criteria	N included studies (date range) N participants	Target condition	CCM elements evaluated	Outcomes	Systematic review AMSTAR rating	Quality of primary studies [#]
Adams ²⁴ (2007) America	3 (1966-2005)	Intervention(s) with at least 1 CCM component; control or comparison group or at least 1 outcome measured at 2 points; relevant outcome(s)	32 (1987-2004) NR	Chronic Obstructive Pulmonary Disease (COPD)	Self-management support Decision support Delivery support design Clinical information system	Mortality; ED presentations; hospitalisations; patient knowledge; QoL; functioning	Moderate	Study quality: 1 good, 5 fair, 14 poor, 5 not assessed
Atlantis ²⁵ (2014) Australia*	7 (-2013)	Study type RCT; interventions consisted of collaborative care; majority of participants needed to have comorbid diabetes and depression; health outcomes reported	7 (2004-2013) 1895	Depression with diabetes	Self-management support Decision support Delivery support design	Depression; diabetes clinical outcome	Moderate	6 of 7 RCTs better quality
Davy ⁴ (2015) Australia	7 (1998-2013)	Studies with a focus on care of people with a chronic disease (specified or non-specified) in the primary care setting; interventions included at least 2 CCM elements; measurement of health care practices or outcomes; any study type	77 (1999-2012) NR	Chronic disease	Self-management support Decision support Delivery support design Clinical information system Health system support Community support Enhanced case management Facilitated family support	Health; practice outcomes	Moderate	13 RCTs, 2 non-RCTs, 6 retrospective cohort and 11 cross sectional studies – high risk of bias
Moullec ²⁸ (2012) Canada	2 (1948-2010)	Adults with asthma and/or COPD disease; effectiveness study; interventions with CCM elements; included outcome of asthma controller medication use	18 (1990-2010) 612	Asthma and COPD	Self-management support Decision support Delivery support design Clinical information system	Adherence to asthma medication	Moderate	Study quality: 6 good, 11 moderate
Pasricha ²⁹ (2012) Canada	3 (1996-2011)	Individuals known to be living with HIV; all intervention strategies for people with HIV that were evaluated	16 (2002-2010) 29,897	HIV/AIDS	Decision support Clinical information system	Immunological, medical and psychosocial outcomes; QoL; process of care	Moderate	2 RCTs, 1 CBA, 9 cohort, 1 cross sectional and 3 time series studies Risk of bias: 1 in RCT
Powell-Davies ³⁰ (2006) Australia	12 (NR)	Article looking at Coordination of PHC interventions; published in English; studies from Australia, Canada, New	85 (1994-2005) NR	Chronic disease, mental health, and aged care	Self-management support Decision support Delivery support design Clinical information system Health system support	Health; patient and clinician satisfaction; cost-effectiveness	Moderate	79 RCTs and 6 other experimental or cohort – only higher quality studies included

Reference (year) Country	N databases searched (searched date range)	Inclusion criteria	N included studies (date range) N participants	Target condition	CCM elements evaluated	Outcomes	Systematic review AMSTAR rating	Quality of primary studies [#]
		Zealand, UK, US, or Netherlands; study type experimental or evaluation						
Si ²⁶ (2008) Australia*	3 (1966-2005)	Experimental studies; diagnosis of type 1 or type 2 diabetes; aged 16 years or more; receiving care in a primary care, outpatient or community setting	65 (1988-2004) NR	Diabetes	Self-management support Decision support Delivery support design Clinical information system Health system support Community support	Clinical outcomes	Moderate	Study quality: 23 RCTs strong, 2 CBA strong
Tsai ¹³ (2005) America*	8 (-2003)	Effectiveness of interventions containing 1 or more of the CCM elements; RCTs and non-RCTs	112 (1993-2003) NR	Depression, Asthma, CHF, Diabetes	Self-management support Decision support Delivery support design Clinical information system Health system support Community support	Clinical outcomes; process of care outcomes; QoL	Moderate	Methodological quality: 36 studies scored 3 or higher (moderate - high quality)
Woltmann ¹⁵ (2012)*	6 (-2011)	Trials were required to compare an intervention meeting CCM definition with another intervention or treatment as usual	78 (1994-2010) 22,037	Mental health conditions with or without other condition	Self-management support Decision support Delivery support design Clinical information system Health system support Community support	Depression symptoms; QoL; social role functioning	Moderate	No evidence of bias, no publication bias present

Notes. *Meta-analysis; #based on systematic review authors' determination; NR = not reported.

Appendix 3: Systematic review findings

Author & Year	Results	Direction of effect
Adams ²⁴	Pooled data demonstrated that patients who received 2 or more CCM components had lower rates of hospitalisation and ED visits and shorter LOS. No significant effect on COPD symptoms, quality of life, lung function and functional status.	Positive
Atlantis ²⁵	Depression score and diabetes control significantly improved.	Positive
Davy ⁴	Majority of studies reported improvements to healthcare practice or health outcomes for people living with chronic disease. Most common elements were self-management support and delivery system design, there were considerable variations between studies regarding what combination of elements were included as well as the way in which chronic care model elements were implemented. The authors were not able to identify optimal combinations of chronic care model elements that led to the reported improvements.	Positive
Moullec ²⁸	Inclusion of a greater number of CCM components within interventions was associated with stronger effects on asthma medication adherence outcomes, with interventions featuring one, two, and four CCM components having medium (ES= 0.29; 95%CI, 0.16-0.42), large (0.53; 0.40-0.66), and very-large (0.83; 0.69-0.98) effects respectively.	Positive
Pasricha ²⁹	Overall, 5/9 (55.6%) and 17/41 (41.5%) process measures and 5/12 (41.7%) and 3/9 (33.3%) outcome measures for decision support and clinical information system interventions, respectively, were statistically significantly improved.	Positive
Powell-Davies ³⁰	Six types of elements/strategies were identified consistent with the CCM. All were associated with improved health and /or patient satisfaction outcomes in more than 50% of studies and interventions using multiple strategies were more successful than those using single strategies.	Positive
Si ²⁶	Included studies reported a mean reduction of 0.46% (95% CI 0.38, 0.54) in HbA1c, mean reduction of 2.2 (95% CI 0.9, 3.5)mmHg in systolic blood pressure, mean reduction of 1.3 (95% CI 0.6, 2.1)mmHg in diastolic blood pressure and mean reduction of 0.24 (95% CI 0.06, 0.41) mmol/L in total cholesterol; For specific CCM components, interventions that addressed delivery system design reported the largest improvements in patient outcomes, followed by those employing a self-management support component. Interventions involving decision support or clinical information systems reported relatively smaller effect sizes	Positive
Tsai ¹³	Overall the interventions led to statistically significant improvements in ED visits, Readmission, quality of life and process of care. Four elements of the CCM (delivery system design, self-management support, decision support, and clinical information systems) were associated with better outcomes and processes.	Positive
Woltmann ¹⁵	The meta-analysis indicated significant effects across disorders and care settings for depression as well as for mental and physical quality of life and social role function (Cohen's d values, 0.20–0.33).	Positive