**Additional file 1.** Database Search Strategies

Ovid MEDLINE <1946 to June Week 4 2017>
-------------------------------------------------------------------------------
1     exp Long-Term Care/ (24337)
2     long term care.mp. (32669)
3     exp Nursing Homes/ (36140)
4     (nursing home\* or care home\*).mp. (41293)
5     or/1-4 (69782)
6     research.ti. (186869)
7     trial\*.ti. (214483)
8     (study or studies).ti. (1402438)
9     or/6-8 (1773742)
10     challenge\*.ti,hf. (71692)
11     (accrual or accrued or nonaccrual).ti,hf. (427)
12     issue\*.ti,hf. (54276)
13     factor\*.ti,hf. (579118)
14     recruit\*.ti,hf. (22291)
15     problem\*.ti,hf. (177904)
16     barrier\*.ti,hf. (37053)
17     attrition.ti,hf. (1509)
18     participat\*.ti,hf. (28677)
19     approv\*.ti,hf. (7498)
20     availab\*.ti,hf. (129248)
21     difficult\*.ti,hf. (25504)
22     (dropout or drop out).ti,hf. (1127)
23     retention.ti,hf. (25070)
24     (research adj2 ready).ti,hf. (16)
25     or/10-24 (1146952)
26     5 and 9 and 25 (479)
27     limit 26 to english language (427)

Embase Classic+Embase <1947 to 2017 Week 27>
--------------------------------------------------------------------------------
1     long term care/ (112590)
2     long term care.mp. (120811)
3     exp nursing home/ (48561)
4     (nursing home\* or care home\*).mp. (60758)
5     or/1-4 (171747)
6     research.ti. (238382)
7     trial\*.ti. (311895)
8     (study or studies).ti. (1939058)
9     or/6-8 (2451472)
10     challenge\*.ti,kw. (102057)
11     (accrual or accrued or nonaccrual).ti,kw. (829)
12     issue\*.ti,kw. (76549)
13     factor\*.ti,kw. (941955)
14     recruit\*.ti,kw. (32006)
15     problem\*.ti,kw. (215527)
16     barrier\*.ti,kw. (66938)
17     attrition.ti,kw. (2539)
18     participat\*.ti,kw. (41843)
19     approv\*.ti,kw. (12876)
20     availab\*.ti,kw. (94525)
21     difficult\*.ti,kw. (37371)
22     (dropout or drop out).ti,kw. (2246)
23     retention.ti,kw. (39010)
24     (research adj2 ready).ti,kw. (28)
25     or/10-24 (1639626)
26     5 and 9 and 25 (1149)
27     limit 26 to english language (1062)

Cochrane Central Register of Controlled Trials <May 2017>
--------------------------------------------------------------------------------
1     exp Long-Term Care/ (1028)
2     long term care.mp. (4522)
3     exp Nursing Homes/ (1058)
4     (nursing home\* or care home\*).mp. (2943)
5     or/1-4 (7132)
6     research.ti. (5833)
7     trial\*.ti. (198423)
8     (study or studies).ti. (188407)
9     or/6-8 (373110)
10     challenge\*.ti,ab. (16066)
11     (accrual or accrued or nonaccrual).ti,ab. (2510)
12     issue\*.ti. (637)
13     factor\*.ti. (18077)
14     recruit\*.ti. (1652)
15     problem\*.ti. (3075)
16     barrier\*.ti,ab. (7317)
17     attrition.ti,ab. (1533)
18     participat\*.ti. (1832)
19     approv\*.ti. (250)
20     availab\*.ti. (966)
21     difficult\*.ti. (1033)
22     (dropout or drop out).ti,ab. (8581)
23     retention.ti,ab. (9390)
24     (research adj2 ready).ti,ab. (3)
25     or/10-24 (68872)
26     5 and 9 and 25 (305)
27     limit 26 to english language (236)

PsycINFO <1806 to June Week 4 2017>:
--------------------------------------------------------------------------------
1     long term care/ (4403)
2     long term care.mp. (7708)
3     nursing homes/ (7740)
4     (nursing home\* or care home\*).mp. (12956)
5     or/1-4 (18650)
6     research.ti. (88474)
7     trial\*.ti. (31145)
8     (study or studies).ti. (275363)
9     or/6-8 (388211)
10     challenge\*.ti,ab,id. (168014)
11     (accrual or accrued or nonaccrual).ti,id. (72)
12     issue\*.ti,id. (61881)
13     factor\*.ti,id. (194667)
14     recruit\*.ti,id. (6654)
15     problem\*.ti,id. (134728)
16     barrier\*.ti,id. (13215)
17     attrition.ti,id. (2256)
18     participat\*.ti,id. (30856)
19     approv\*.ti,id. (1898)
20     availab\*.ti,id. (6366)
21     difficult\*.ti,id. (21275)
22     (dropout or drop out).ti,id. (2778)
23     retention.ti,id. (15614)
24     (research adj2 ready).ti,id. (4)
25     or/10-24 (617046)
26     5 and 9 and 25 (397)
27     limit 26 to english language (355)

CINAHL Strategy<1981 to July 2017>:

|  |  |  |  |
| --- | --- | --- | --- |
| **Search ID#**  | **Search Terms**  | **Search Options**  | **Results**  |
| S26  | S5 AND S9 AND S25  | Limiters - English Language  | 343  |
| S25  | S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24  |  | 199,741  |
| S24  | TI (research N2 ready)  |  | 29  |
| S23  | TI retention  |  | 4,355  |
| S22  | TI (dropout or drop out)  |  | 344  |
| S21  | TI difficult\*  |  | 6,797  |
| S20  | TI availab\*  |  | 6,003  |
| S19  | TI approv\*  |  | 6,021  |
| S18  | TI participat\*  |  | 11,063  |
| S17  | TI attrition  |    | 485  |
| S16  | TI barrier\*  |  | 10,107  |
| S15  | TI problem\*  |  | 26,921  |
| S14  | TI recruit\*  |  | 5,854  |
| S13  | TI factor\*  |  | 59,959  |
| S12  | TI issue\*  |  | 40,489  |
| S11  | TI (accrual or accrued or nonaccrual)  |  | 109  |
| S10  | TI challenge\*  |  | 27,152  |
| S9  | S6 OR S7 OR S8  |  | 294,747  |
| S8  | TI (study or studies)  |  | 172,353  |
| S7  | TI trial\*  |  | 57,225  |
| S6  | TI research  |  | 73,325  |
| S5  | S1 OR S2 OR S3 OR S4  |  | 56,251  |
| S4  | TX (nursing home\* OR care home\*)  |  | 36,504  |
| S3  | (MH "Nursing Homes+")  |  | 18,880  |
| S2  | TX long term care  |  | 30,430  |
| S1  | (MH "Long Term Care")  |  | 18,348 |