**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 |