

Supplementary Online Content

Ofori-Asenso R, Chin KL, Mazidi M, et al. Global incidence of frailty and prefrailty among community-dwelling older adults: a systematic review and meta-analysis. *JAMA Netw Open*. 2019;2(8):e198398. doi:10.1001/jamanetworkopen.2019.8398

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eReferences.

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Search Sequence for Ovid Medline Which Was Subsequently Adapted for Other Databases

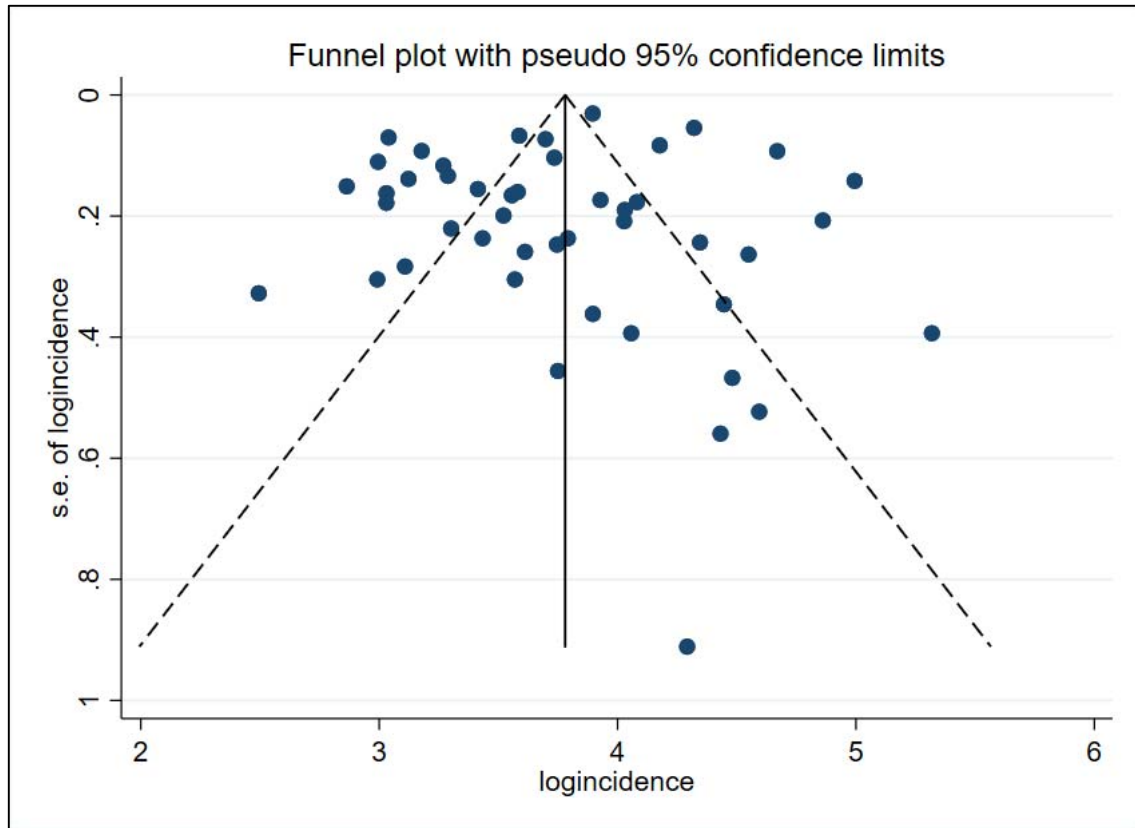
- 1 exp Frailty
- 2 frailty.mp
- 3 exp Frail Elderly
- 4 Frail Elderly.sh,kf.
- 5 Frail Older People.mp.
- 6 Frailty syndrome.mp.
- 7 (Frailty *adj2* syndrome).mp.
- 8 (Frail* *or* geriatric syndrome* *or* geriatric disorder*).ti,ab.
- 9 ((elder* *or* old* *or* senior* *or* geriatric*) *adj4* function* *adj4* (declin* *or* impair*)).af.
- 10 1 *or* 2 *or* 3 *or* 4 *or* 5 *or* 6 *or* 7 *or* 8 *or* 9
- 11 Incidence.mp. *or* exp Incidence
- 12 Incidence*.mp.
- 13 Incidence.ti.
- 14 Incidence.sh.
- 15 (Epidemiology* *or* pattern* *or* cluster* *or* number*).ti.
- 16 Transition*.mp.
- 17 Trajectories.mp.
- 18 trajectory.mp.
- 19 11 *or* 12 *or* 13 *or* 14 *or* 15 *or* 16 *or* 17
- 20 10 *and* 19

eFigure 1. A Map Showing the Geographical Spread of the Countries From Which Data Were Collected*

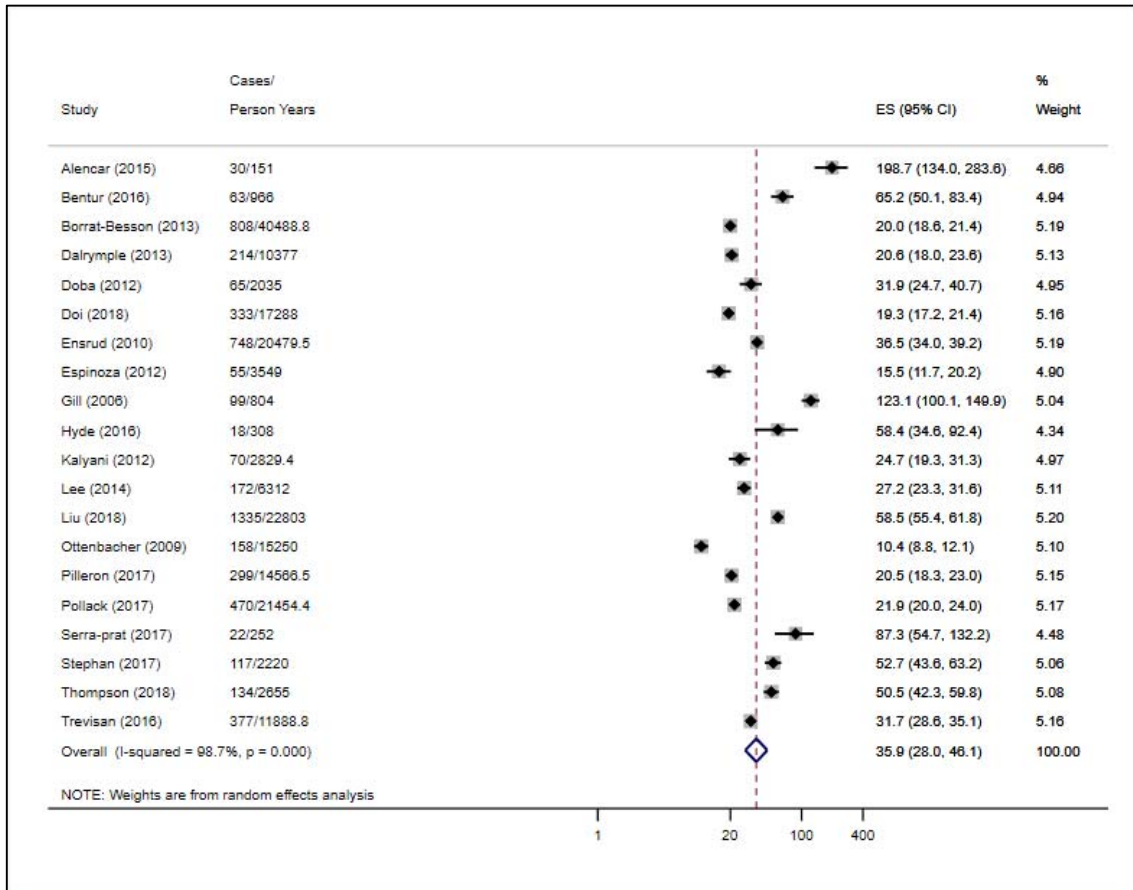


*Countries with included data are highlighted in yellow; map was created with *MapChart*.

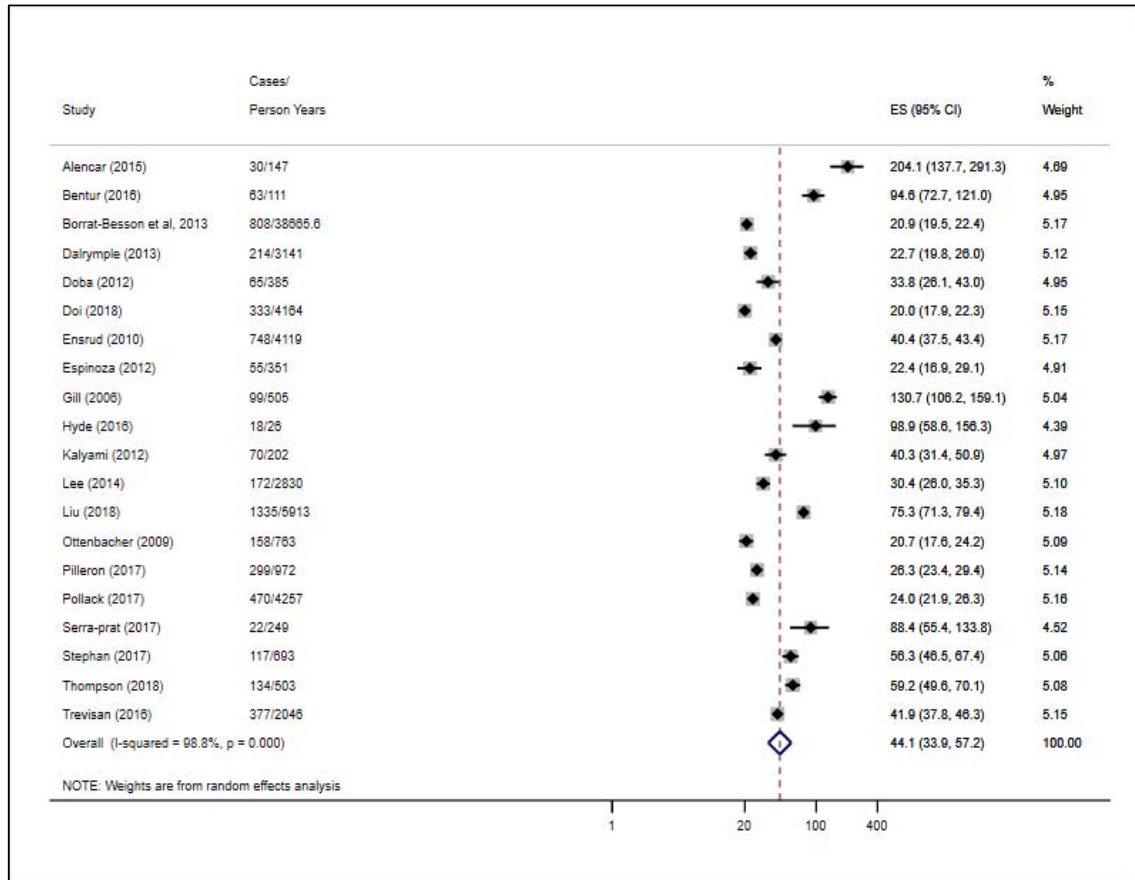
eFigure 2. Funnel Plot of Incidence Rates of Frailty Among Community-Dwelling Older Adults



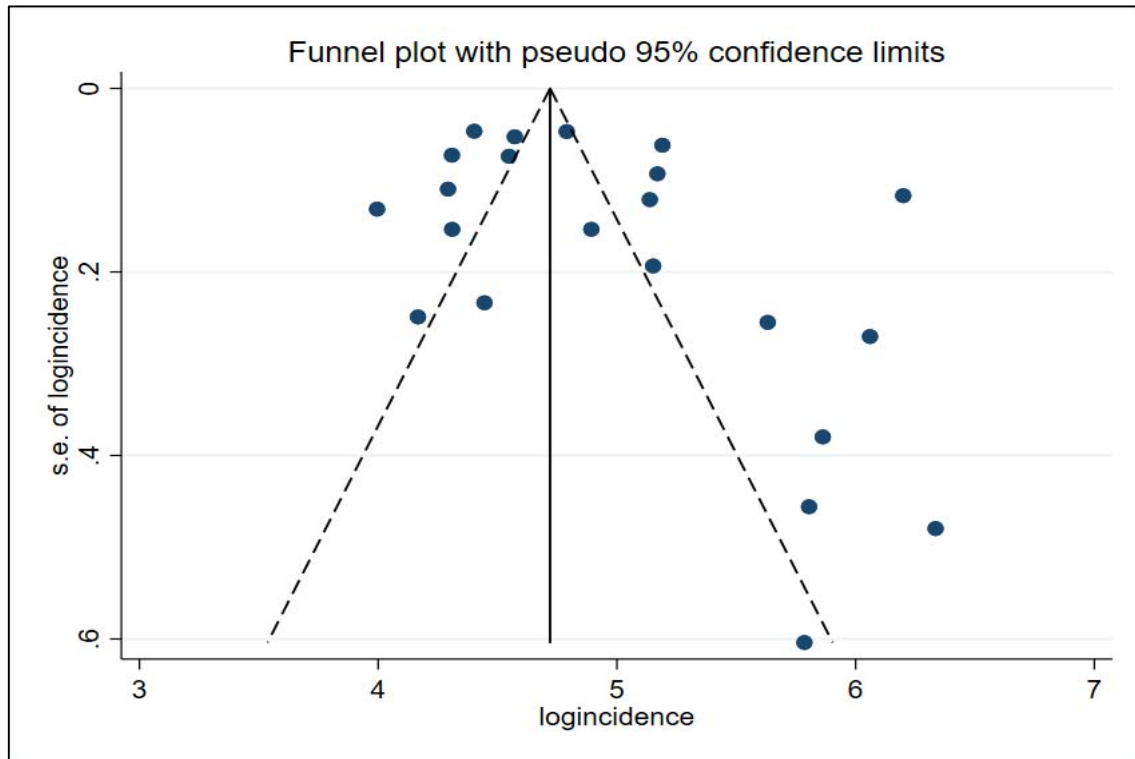
eFigure 3. Forest Plot of Incidence Rates of Frailty Among Community-Dwelling Older Adults When Factoring in Progression to Deaths in Studies With Death Data



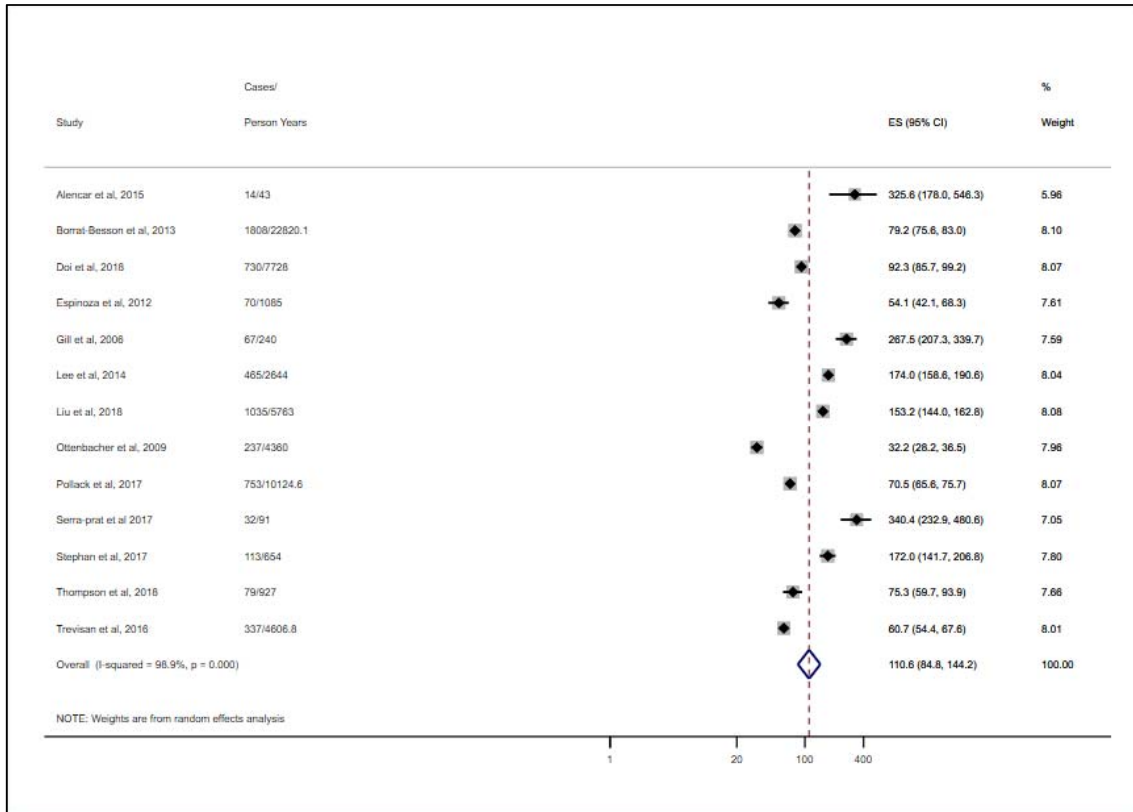
eFigure 4. Forest Plot of Incidence Rates of Frailty Among Community-Dwelling Older Adults When Limiting to Survivors in Studies With Death Data



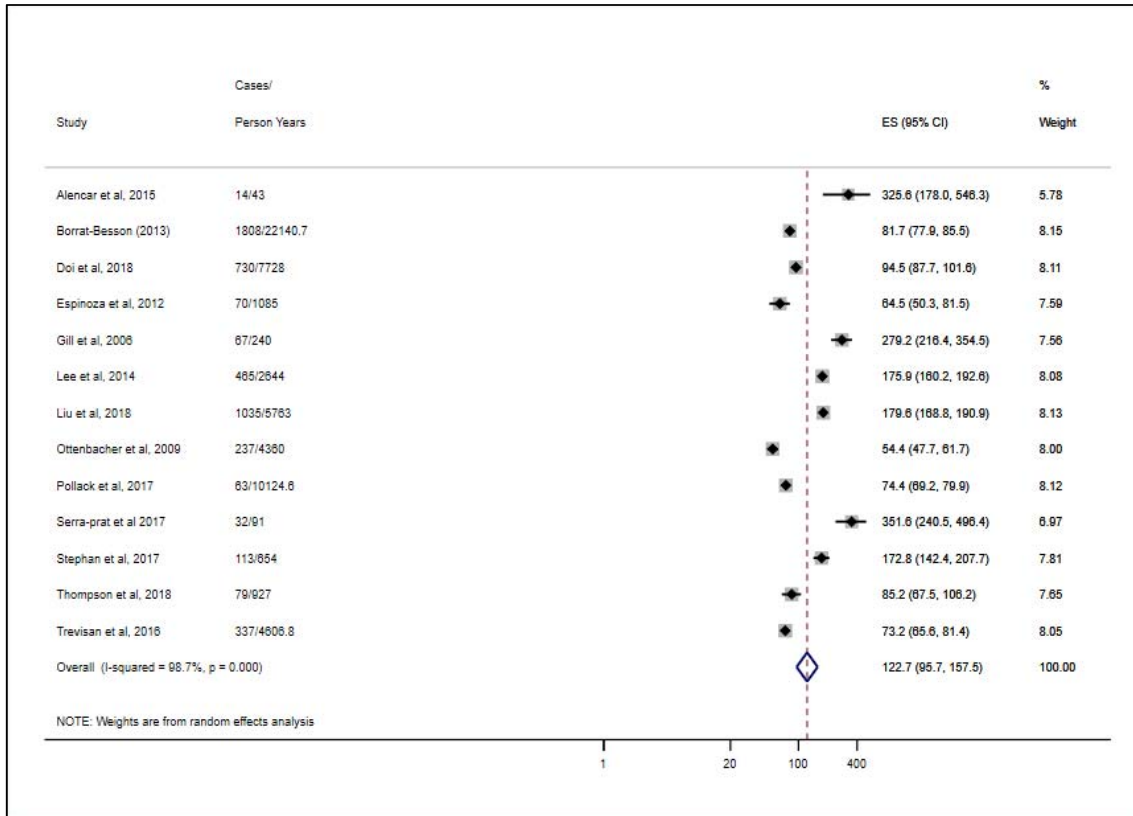
eFigure 5. Funnel Plot of Incidence Rates of Pre-frailty Among Community-Dwelling Older Adults



eFigure 6. Forest Plot of Incidence Rates of Pre-frailty Among Community-Dwelling Older Adults When Factoring in Progression to Deaths in Studies With Death Data



eFigure 7. Forest Plot of Incidence Rates of Pre-frailty Among Community-Dwelling Older Adults When Limiting to Survivors in Studies With Death Data



eTable 2. Estimates From Leave-One-Out Sensitivity Analyses for the Incidence of Frailty

| Study Omitted | Point estimate | Lower CI | Upper CI |
|--|----------------|-------------|-------------|
| Ahmad (2018) ¹ | 43.4 | 37.2 | 50.6 |
| Alencar (2015) ² | 42.0 | 36.1 | 48.8 |
| Ayers (2017a) ³ | 43.1 | 37.0 | 50.2 |
| Ayers (2017b) ³ | 42.7 | 36.7 | 49.8 |
| Baulderstone (2012) ⁴ | 44.3 | 38.1 | 51.4 |
| Bentur (2016) ⁵ | 42.6 | 36.6 | 49.6 |
| Borrat-Besson (2013) ⁶ | 44.1 | 38.1 | 51.0 |
| Castrejón-Pérez (2017) ⁷ | 43.2 | 37.1 | 50.4 |
| Chhetri (2018) ⁸ | 42.4 | 36.6 | 49.1 |
| Dalrymple (2013) ⁹ | 44.0 | 37.8 | 51.2 |
| Doba (2012) ¹⁰ | 43.5 | 37.3 | 50.7 |
| Doi (2018) ¹¹ | 44.1 | 38.0 | 51.3 |
| Ensrud (2010) ¹² | 43.5 | 37.1 | 50.9 |
| Espinoza (2012) ¹³ | 44.0 | 37.8 | 51.2 |
| Gale (2013) ¹⁴ | 43.8 | 37.6 | 51.1 |
| Garcia-Esquinas (2015) ¹⁵ | 43.6 | 37.4 | 50.8 |
| Garcia-Esquinas (2016) ¹⁶ | 42.8 | 36.8 | 49.8 |
| Gill (2006) ¹⁷ | 42.3 | 36.4 | 49.1 |
| Gnjidic (2012) ¹⁸ | 43.7 | 37.5 | 50.9 |
| Gomes (2018) ¹⁹ | 43.8 | 37.6 | 51.0 |
| Gruenewald (2013) ²⁰ | 44.1 | 37.9 | 51.3 |
| Hyde (2016) ²¹ | 42.7 | 36.7 | 49.7 |
| Iwasaki (2018) ²² | 43.5 | 37.4 | 50.7 |
| Kalyami (2012) ²³ | 43.3 | 37.2 | 50.5 |
| Kim (2017) ²⁴ | 43.2 | 37.1 | 50.4 |
| Lanziotti (2015) ²⁵ | 42.8 | 36.8 | 49.9 |
| Lee (2014) ²⁶ | 43.7 | 37.5 | 51.0 |
| Liu (2018) ²⁷ | 42.8 | 36.8 | 49.7 |
| Lorenzo-López (2019) ²⁸ | 43.1 | 37.0 | 50.2 |
| Ottenbacher (2009) ²⁹ | 44.1 | 37.9 | 51.3 |
| Pilleron (2017) ³⁰ | 43.9 | 37.7 | 51.1 |
| Pollack (2017) ³¹ | 44.0 | 37.8 | 51.1 |
| Potier (2018) ³² | 43.0 | 37.0 | 50.1 |
| Ramsay (2018) ³³ | 43.6 | 37.4 | 50.8 |
| Sandoval-Insausti (2016) ³⁴ | 44.1 | 37.9 | 51.3 |
| Saum (2017) ³⁵ | 43.6 | 37.4 | 50.8 |
| Semba (2006) ³⁶ | 42.1 | 36.4 | 48.7 |
| Serra-prat (2017) ³⁷ | 42.8 | 36.7 | 49.8 |
| Sha (2018) ³⁸ | 43.6 | 37.2 | 51.0 |
| Stephan (2017) ³⁹ | 43.1 | 37.0 | 50.2 |
| Swiecicka (2018) ⁴⁰ | 44.6 | 38.3 | 51.8 |
| Thompson (2018) ⁴¹ | 43.1 | 36.9 | 50.2 |
| Trevisan (2016) ⁴³ | 43.4 | 37.2 | 50.7 |
| Wang (2019) ⁴⁴ | 43.4 | 37.2 | 50.5 |
| Woods (2005) ⁴⁵ | 43.4 | 36.5 | 51.6 |
| Zaslavsky (2016) ⁴⁶ | 43.0 | 36.8 | 50.1 |
| Combined | 43.4 | 37.3 | 50.4 |

eTable 3. Estimates of Leave-One-Out Sensitivity Analyses for the Incidence of Pre-frailty

| Study Omitted | Point estimate | Lower CI | Upper CI |
|------------------------------------|----------------|--------------|--------------|
| Ahmad (2018) ¹ | 140.1 | 118.0 | 166.2 |
| Alencar (2015) ² | 146.5 | 119.5 | 179.5 |
| Borrat-Besson (2013) ⁶ | 155.7 | 125.7 | 192.8 |
| Doi (2018) ¹¹ | 154.5 | 124.9 | 191.3 |
| Espinoza (2012) ¹³ | 156.8 | 127.7 | 192.4 |
| Gill (2006) ¹⁷ | 146.2 | 119.3 | 179.2 |
| Gomes (2018) ¹⁹ | 149.8 | 121.8 | 184.1 |
| Gruenewald (2013) ²⁰ | 151.6 | 123.2 | 186.6 |
| Lanziotti (2015) ²⁵ | 145.8 | 118.9 | 178.7 |
| Lee (2014) ²⁶ | 149.5 | 121.7 | 183.7 |
| Liu (2018) ²⁷ | 149.2 | 121.7 | 183.0 |
| Lorenzo-López (2019) ²⁸ | 143.3 | 117.2 | 175.1 |
| Ottenbacher (2009) ²⁹ | 158.3 | 129.4 | 193.7 |
| Pollack (2017) ³¹ | 156.2 | 126.9 | 192.1 |
| Potier (2018) ³² | 142.8 | 116.6 | 174.8 |
| Serra-prat (2017) ³⁷ | 145.1 | 118.4 | 177.8 |
| Stephan (2017) ³⁹ | 149.7 | 121.8 | 183.8 |
| Swiecicka (2018) ⁴⁰ | 156.0 | 126.9 | 191.7 |
| Thompson (2018) ⁴¹ | 154.8 | 126.0 | 190.2 |
| Tom (2017a) ⁴² | 153.2 | 122.2 | 192.1 |
| Tom (2017b) ⁴² | 154.7 | 124.0 | 192.9 |
| Trevisan (2016) ⁴³ | 156.2 | 127.1 | 192.0 |
| Combined | 150.6 | 123.3 | 184.1 |

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