## Supplementary Appendix

Table S1. Search strategy

| Database                          | Search string                                                                        | Records<br>retrieved | Comments                                |
|-----------------------------------|--------------------------------------------------------------------------------------|----------------------|-----------------------------------------|
| MEDLINE PubMed                    | specialist [ti] AND (routine OR primary) AND provi* [ti]                             | 55                   | Limits: Human,<br>Abstract.             |
|                                   | "Specialization"[Mesh] AND "Primary Health<br>Care"[Mesh] NOT (student OR education) | 553                  | Limits: Human,<br>Abstract.             |
| ScienceDirect                     | specialist AND (routine OR primary) AND provi*                                       | 245                  | Limits: Research and<br>Review articles |
| Scopus                            | specialist AND (routine OR primary) AND provi*                                       | 60                   |                                         |
| EBSCO Academic<br>Search Complete | specialist AND (routine OR primary) AND provi*<br>[title]                            | 26                   | Limits: none.                           |
| Web of Science                    | (TI=(specialist AND (routine OR primary) AND provi*)) AND DOCUMENT TYPES: (Article)  | 38                   | Limits: none.                           |
| Embase                            | 'specialist':ti AND 'primary care':ti                                                | 156                  | Limits: Humans,<br>English, Abstracts.  |
|                                   | Total                                                                                | 1,133                |                                         |

The 'Similar Articles' feature in PubMed was used to locate additional relevant articles.

## Table S2. Included studies

| Author                                              | Country | Year | Setting                                                      | Study design                                                             | Rate of primary<br>care provision by<br>specialists<br>(percent) |
|-----------------------------------------------------|---------|------|--------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------|
| Spiegel, 1983 A                                     | USA     | 1983 | Health systems data                                          | Retrospective data analysis                                              | 34                                                               |
| Spiegel, 1983 B                                     | USA     | 1983 | Health systems data                                          | Retrospective data analysis                                              | 12                                                               |
| Spiegel, 1983 C                                     | USA     | 1983 | Health systems data                                          | Retrospective data analysis                                              | 9                                                                |
| Rosenblatt, Hart,<br>Baldwin, Chan,<br>Schneeweiss  | USA     | 1998 | Washington State<br>Medicare claims data                     | Retrospective analysis,<br>1994-1995 data,<br>patients aged 65+<br>years | 14.7                                                             |
| Fink, Baldwin,<br>Lawson, Chan,<br>Rosenblatt, Hart | USA     | 2001 | Washington State<br>Medical claims data<br>for Gynecologists | Retrospective analysis,<br>1994-1995 data,<br>patients aged 65+<br>years | 6.7                                                              |
| Mold                                                | USA     | 2004 | US Physicians                                                | Cross-sectional survey                                                   | 40                                                               |
| Fryer                                               | USA     | 2004 | Statewide survey                                             | Questionnaire survey<br>of specialists                                   | 46.5                                                             |
| Stock Keister,                                      | USA     | 2004 | Patients                                                     | Population based survey                                                  | 11                                                               |
| Woodwell, NAMCS                                     | USA     | 2002 | Ambulatory clinics                                           | US nationwide survey<br>of physicians in<br>ambulatory clinics           | 50                                                               |
| NCHS, NAMCS                                         | USA     | 2013 | Ambulatory clinics                                           | NAMCS 2013                                                               | 5.3                                                              |
| Edwards, NAMCS                                      | USA     | 1997 | Ambulatory clinics                                           | NAMCS 1997                                                               | 30.6                                                             |
| Edwards, NAMCS                                      | USA     | 2010 | Ambulatory clinics                                           | NAMCS 2010                                                               | 9.8                                                              |
| Edwards, Mafi,<br>Landon                            | USA     | 2014 | Office-based physicians                                      | NAMCS 1997 – 2010,<br>secondary data<br>analysis                         | 30.6 (in 1997) to<br>9.8 (2010)                                  |

## Table S3. Excluded studies

| Ref           | Year  | Study design                                                                                                                              | Rate |
|---------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------|------|
| Romaire, 2014 | 2014  | Health systems data (US Medicare<br>beneficiaries claims data) – did not assess<br>whether the specialists were providing<br>primary care | 25   |
| Valderas,     | NAMCS | Pediatric patients only.                                                                                                                  | 41.3 |
| 2009          | 2002  | Data is subset of Woodwell, NAMCS 2002                                                                                                    |      |

Figure S1. PRISMA flowchart

