**Supplemental Table 1.** Primary data sources for the Disease Expenditure Project

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| --- | --- | --- | --- |
| **Type of Care** | **Macro spending data and years** | **Micro spending data and years** | **Micro volume data and years** |
| Ambulatory | NHEA (1996 – 2016) | MEPS (1996 – 2016);SAMHSA (1998, 2002, 2004, 2005, 2009); MarketScan(2000, 2010 – 2015) | NAMCS (1996 – 2015); MarketScan (2000, 2010 – 2015) |
| Inpatient | NHEA (1996 – 2016) | NIS (1996 – 2016);MEPS (1996 – 2016);SAMHSA(1998, 2002, 2004, 2005, 2009); MarketScan(2000, 2010 – 2015) | NIS (1996 – 2016);MarketScan (2000, 2010 – 2015) |
| Emergency Department | NHEA (1996 – 2016) | NEDS (2006 – 2013; 2015 – 2016); MEPS (1996 – 2016) | NEDS (2006 – 2013;2015 – 2016); MarketScan (2000, 2010 – 2015) |
| Nursing Care | NHEA (1996 – 2016) | Medicare claims data (1999 – 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016);NNHS (1997, 1999, 2004); Medicaid (2000 – 2005, 2008, 2011, 2013); MarketScan (2000, 2010 – 2015); MCBS (1999 – 2012) | Medicare claims data(1999 – 2002, 2004,2006, 2008, 2010, 2012, 2014, 2016); NNHS (1997, 1999, 2004); Medicaid (2000 – 2005, 2008, 2011, 2013); MarketScan (2000, 2010 – 2015) |

Abbreviations: MCBS = Medicare Current Beneficiary Survey; MEPS = Medical Expenditure Panel Survey; NAMCS = National Ambulatory Medical Care Survey; NEDS = National Emergency Department Sample; NHEA = National Health Expenditure Accounts; NIS = Nationwide Inpatient Sample; NNHS = National Nursing Home Survey; SAMHSA = Substance Abuse and Mental Health Services Administrative data

**Supplemental Table 2.** Mapping of cirrhosis and other chronic liver disease conditions

|  |  |
| --- | --- |
| **ICD9** | **ICD10** |
| 070.22–070.23, 070.32–070.33, 070.44, 070.54, 456.0–456.21, 570, 570.0, 570.9, 571–571.9, 572.3–572.9, 573.0–573.3,573.8–573.9, V42.7, 789.1, 789.2,789.5, 789.51, 789.59 | I85, I85.0, I85.00, I85.01, I85.1, I85.10, I85.11, I85.9, I98.2, K70, K70.1, K70.10, K70.11, K70.2, K70.3, K70.30, K70.31, K70.4, K70.40, K70.41, K71, K71.0, K71.2, K71.3, K71.4, K71.5, K71.50, K71.51, K71.6,K71.7, K71.8, K71.9, K72, K72.1, K72.10, K72.11, K72.9, K72.90, K72.91, K73, K73.0, K73.1, K73.2, K73.8, K73.9, K74, K74.0, K74.1, K74.2, K74.3, K74.4, K74.5, K74.6,K74.60, K74.69, K74.7, K74.8, K74.9, K75, K75.2, K75.3, K75.4, K75.8, K75.81, K75.89, K75.9, K76, K76.0, K76.1, K76.2, K76.3, K76.4, K76.5, K76.6, K76.7, K76.8, K76.81, K76.89, K76.9, K77, K77.0, K77.8, R16, R16.0, R16.1, R16.2, R17.0, R17.9, R18, R18.0, R18.9, Z94.4 |

**Supplemental Table 3.** Drivers of change in healthcare spending for CLD and cirrhosis (1996-2013)

|  |  |  |
| --- | --- | --- |
| **Factor** | **Ambulatory Care** | **Inpatient Care** |
| **APC [95% CI]** | **Change ($ billion USD, [95% CI]** | **APC [95% CI]** | **Change ($ billion USD, [95% CI]** |
| Change in population size | 2.6% [2.0%, 3.5%] | $0.04 [$0.02, $0.05] | 2.7% [2.5%, 3.1%] | $0.42 [$0.35, $0.53] |
| Change in population age | 3.3% [2.3%, 4.6%] | $0.05 [$0.03, $0.06] | 2.9% [2.6%, 3.2%] | $0.44 [$0.36, $0.56] |
| Change in disease incidence or prevalence | 5.1% [3.2%, 7.6%] | $0.07 [$0.05, $0.09] | 5.1% [3.9%, 6.5%] | $0.77 [$0.62, $0.94] |
| Change in service utilization | -1.1% [-6.8%, 5.7%] | -$0.02 [$-0.11, $0.07] | -14.4% [-16.6%, -12.6%] | $-2.18 [$-2.80, $-1.80] |
| Change in price and intensity of care | 3.2% [-1.3%, 9.0%] | $0.04 [$-0.03, $0.10] | 17.8% [14.5%, 21.6%] | $2.70 [$2.23, $3.38] |

Abbreviations: APC annual percent change, CI confidence interval