

SUPPLEMENT 1: SEARCH STRATEGY & DATA ABSTRACTION

The following is the search strategy used in this study. After the search was executed, Level 1 screenings were conducted. Those that passed Level 1 screening were passed to full-text review where researchers read and abstracted data from a subset of these articles. Data were abstracted onto a shared Excel spreadsheet to ensure that all authors were consistently capturing the same types of information. The categories of data captured included: 1) author(s); 2) title; 3) date of publication within range of interest; 4) type of outcome (e.g. prevalence, incidence, direct cost, indirect cost, total cost, activity limitation, or work limitation); 5) results from the study; 6) definition of the condition that the study used; 7) sample size; 8) sample methodology (e.g. databases used, survey methods, etc.); 9) sample distribution (national, sub-national, single-facility, etc.); 10) population makeup/key sample demographics; 11) response rate; 12) data collection date; and 13) use of specific modeling techniques.

I. Pubmed

Back Pain:

("back pain/economics"[Majr] OR "back pain/epidemiology"[Majr] OR "back pain/statistics and numerical data"[Majr]) AND ("cost of illness"[MeSH] OR "cost of illness"[TiAb] OR cost[TiAb] OR "disability evaluation"[MeSH] OR disability[TiAb] OR socioeconomic[TiAb] OR work[TiAb] OR burden[TiAb] OR epidemiology[TiAb] OR incidence[MeSH] OR incidence[TiAb] OR prevalence[MeSH] OR prevalence[TiAb] OR financial[TiAb] OR employment[TiAb]) AND ("2013/04/01"[PDAT] : "2019/07/26"[PDAT]) AND "humans"[MeSH] AND English[la]

Rheumatoid Arthritis:

("arthritis, rheumatoid/economics"[Majr] OR "arthritis, rheumatoid/epidemiology"[Majr] OR "arthritis, rheumatoid/statistics and numerical data"[Majr]) AND ("cost of illness"[MeSH] OR "cost of illness"[TiAb] OR cost[TiAb] OR "disability evaluation"[MeSH] OR disability[TiAb] OR socioeconomic[TiAb] OR work[TiAb] OR burden[TiAb] OR epidemiology[TiAb] OR incidence[MeSH] OR incidence[TiAb] OR prevalence[MeSH] OR prevalence[TiAb] OR financial[TiAb] OR employment[TiAb]) AND ("2013/04/01"[PDAT] : "2019/07/26"[PDAT]) AND "humans"[MeSH] AND English[la]

Amputation

("amputation/economics"[Majr] OR "amputation/epidemiology"[Majr] OR "amputation/statistics and numerical data"[Majr] OR "amputees"[Majr] OR "amputees/statistics and numerical data"[Majr]) AND ("cost of illness"[MeSH] OR "cost of illness"[TiAb] OR cost[TiAb] OR "disability evaluation"[MeSH] OR disability[TiAb] OR socioeconomic[TiAb] OR work[TiAb] OR burden[TiAb] OR epidemiology[TiAb] OR incidence[MeSH] OR incidence[TiAb] OR prevalence[MeSH] OR prevalence[TiAb] OR financial[TiAb] OR employment[TiAb]) AND ("2013/04/01"[PDAT] : "2019/07/26"[PDAT]) AND "humans"[MeSH] AND English[la]

Osteoarthritis:

("osteoarthritis/economics"[Majr] OR "osteoarthritis/epidemiology"[Majr] OR "osteoarthritis/statistics and numerical data"[Majr]) AND ("cost of illness"[MeSH] OR "cost of illness"[TiAb] OR cost[TiAb] OR "disability evaluation"[MeSH] OR disability[TiAb] OR socioeconomic[TiAb] OR work[TiAb] OR burden[TiAb] OR epidemiology[TiAb] OR incidence[MeSH] OR incidence[TiAb] OR prevalence[MeSH] OR prevalence[TiAb] OR financial[TiAb] OR employment[TiAb]) AND ("2013/04/01"[PDAT] : "2019/07/26"[PDAT]) AND "humans"[MeSH] AND English[la]

Stroke:

("stroke/economics"[Majr] OR "stroke/epidemiology"[Majr] OR "stroke/statistics and numerical data"[Majr]) AND ("cost of illness"[MeSH] OR "cost of illness"[TiAb] OR cost[TiAb] OR "disability evaluation"[MeSH] OR disability[TiAb] OR socioeconomic[TiAb] OR work[TiAb] OR burden[TiAb] OR epidemiology[TiAb] OR incidence[MeSH] OR incidence[TiAb] OR prevalence[MeSH] OR prevalence[TiAb] OR financial[TiAb] OR employment[TiAb]) AND ("2013/04/01"[PDAT] : "2019/07/26"[PDAT]) AND "humans"[MeSH] AND English[la]

Traumatic Brain Injury:

("brain injuries, traumatic/economics"[Majr] OR "brain injuries, traumatic/epidemiology"[Majr] OR "brain injuries, traumatic/statistics and numerical data"[Majr] OR "brain concussion/economics"[Majr] OR "brain concussion/epidemiology"[Majr] OR "brain concussion/statistics and numerical data"[Majr]) AND ("cost of illness"[MeSH] OR "cost of illness"[TiAb] OR cost[TiAb] OR "disability evaluation"[MeSH] OR disability[TiAb] OR socioeconomic[TiAb] OR work[TiAb] OR burden[TiAb] OR epidemiology[TiAb] OR incidence[MeSH] OR incidence[TiAb] OR prevalence[MeSH] OR prevalence[TiAb] OR financial[TiAb] OR employment[TiAb]) AND ("2013/04/01"[PDAT] : "2019/07/26"[PDAT]) AND "humans"[MeSH] AND English[la]

Multiple Sclerosis:

("multiple sclerosis/economics"[Majr] OR "multiple sclerosis/epidemiology"[Majr] OR "multiple sclerosis/statistics and numerical data"[Majr]) AND ("cost of illness"[MeSH] OR "cost of illness"[TiAb] OR cost[TiAb] OR "disability evaluation"[MeSH] OR disability[TiAb] OR socioeconomic[TiAb] OR work[TiAb] OR burden[TiAb] OR epidemiology[TiAb] OR incidence[MeSH] OR incidence[TiAb] OR prevalence[MeSH] OR prevalence[TiAb] OR financial[TiAb] OR employment[TiAb]) AND ("2013/04/01"[PDAT] : "2019/07/26"[PDAT]) AND "humans"[MeSH] AND English[la]

Spinal Cord Injury:

("spinal cord injuries/economics"[Majr] OR "spinal cord injuries/epidemiology"[Majr] OR "spinal cord injuries/statistics and numerical data"[Majr]) AND ("cost of illness"[MeSH] OR "cost of illness"[TiAb] OR cost[TiAb] OR "disability evaluation"[MeSH] OR disability[TiAb] OR socioeconomic[TiAb] OR work[TiAb] OR burden[TiAb] OR epidemiology[TiAb] OR incidence[MeSH] OR incidence[TiAb] OR prevalence[MeSH] OR prevalence[TiAb] OR financial[TiAb] OR employment[TiAb]) AND ("2013/04/01"[PDAT] : "2019/07/26"[PDAT]) AND "humans"[MeSH] AND English[la]

II. Web of Science

All

(TI=(("back pain" OR "rheumatoid arthritis" OR amputation OR amputee OR osteoarthritis OR stroke OR "traumatic brain injury" OR "brain concussion" OR "multiple sclerosis" OR "spinal cord injury" OR "spinal cord injuries") AND ("cost of illness" OR disability OR employment OR financial OR incidence OR prevalence OR epidemiology)))

Filter: 2013-2019; Language: English

Back Pain

(TI = ("back pain" AND ("cost of illness" OR disability OR employment OR financial OR incidence OR prevalence OR epidemiology)))

Filter: 2013-2019; Language: English

Rheumatoid Arthritis

(TI = ("rheumatoid arthritis" AND ("cost of illness" OR disability OR employment OR financial OR incidence OR prevalence OR epidemiology)))

Amputation

(TI = ((amputation OR amputee) AND ("cost of illness" OR disability OR employment OR financial OR incidence OR prevalence OR epidemiology)))

Filter: 2013-2019; Language: English

Osteoarthritis

(TI = ("osteoarthritis" AND ("cost of illness" OR disability OR employment OR financial OR incidence OR prevalence OR epidemiology)))

Filter: 2013-2019; Language: English

Stroke

(TI = ("stroke" AND ("cost of illness" OR disability OR employment OR financial OR incidence OR prevalence OR epidemiology)))

Filter: 2013-2019; Language: English

Traumatic Brain Injury

(TI = (("traumatic brain injury" OR concussion) AND ("cost of illness" OR disability OR employment OR financial OR incidence OR prevalence OR epidemiology)))

Filter: 2013-2019; Language: English

Multiple Sclerosis

(TI = ("multiple sclerosis" AND ("cost of illness" OR disability OR employment OR financial OR incidence OR prevalence OR epidemiology)))

Filter: 2013-2019; Language: English

Spinal Cord Injury

(TI = (("spinal cord injury" OR "spinal cord injuries") AND ("cost of illness" OR disability OR employment OR financial OR incidence OR prevalence OR epidemiology)))

Filter: 2013-2019; Language: English

III. SCOPUS

All

TITLE (("back pain" OR "rheumatoid arthritis" OR amputation OR amputee OR osteoarthritis OR stroke OR "traumatic brain injury" OR "multiple sclerosis" OR "spinal cord injury" OR "spinal cord injuries") AND ("cost of illness" OR disability OR incidence OR prevalence OR epidemiology OR financial OR employment)) AND (LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) AND (LIMIT-TO (LANGUAGE, "English"))

Back Pain

TITLE (("back pain") AND ("cost of illness" OR disability OR incidence OR prevalence OR epidemiology OR financial OR employment)) AND (LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) AND (LIMIT-TO (LANGUAGE, "English"))

Rheumatoid Arthritis

TITLE (("rheumatoid arthritis") AND ("cost of illness" OR disability OR incidence OR prevalence OR epidemiology OR financial OR employment)) AND (LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) AND (LIMIT-TO (LANGUAGE, "English"))

Amputation

TITLE ((amputation OR amputee) AND ("cost of illness" OR disability OR incidence OR prevalence OR epidemiology OR financial OR employment)) AND (LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) AND (LIMIT-TO (LANGUAGE, "English"))

Osteoarthritis

TITLE (("osteoarthritis") AND ("cost of illness" OR disability OR incidence OR prevalence OR epidemiology OR financial OR employment)) AND (LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) AND (LIMIT-TO (LANGUAGE, "English"))

Stroke

TITLE (("stroke") AND ("cost of illness" OR disability OR incidence OR prevalence OR epidemiology OR financial OR employment)) AND (LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) AND (LIMIT-TO (LANGUAGE, "English"))

Traumatic Brain Injury

TITLE (("traumatic brain injury" OR concussion) AND ("cost of illness" OR disability OR incidence OR prevalence OR epidemiology OR financial OR employment)) AND (LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) AND (LIMIT-TO (LANGUAGE, "English"))

Multiple Sclerosis

TITLE (("multiple sclerosis") AND ("cost of illness" OR disability OR incidence OR prevalence OR epidemiology OR financial OR employment)) AND (LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) AND (LIMIT-TO (LANGUAGE, "English"))

Spinal Cord Injury

TITLE (("spinal cord injury" OR "spinal cord injuries") AND ("cost of illness" OR disability OR incidence OR prevalence OR epidemiology OR financial OR employment)) AND (LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR

LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) AND (LIMIT-TO (LANGUAGE, "English"))

IV. Grey Literature Search

Performed manual internet searches and condition-specific online searches based on expert advice.

The websites of the following organizations were searched for relevant data. Below is the search strategy used, as typed into the websites' search engines. Each new search is separated by a semicolon. All searches were performed as of 03/03/2020.

Organizations: Agency for Healthcare Research and Quality, National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention, Healthcare Cost and Utilization Project (Publications Search only) (HCUP), Medical Expenditure Panel Survey (MEPS), National Heart, Lung, and Blood Institute, American Heart Association, National Multiple Sclerosis Society, Model Systems Knowledge Translation Center: Traumatic Brain Injury and Spinal Cord Injury

Search strategy: [CONDITION] prevalence; [CONDITION] incidence; [CONDITION] cost; [CONDITION] direct cost; [CONDITION] medical cost; [CONDITION] indirect cost; [CONDITION] non-medical cost; [CONDITION] productivity loss; [CONDITION] absenteeism; [CONDITION] presenteeism; [CONDITION] total cost; [CONDITION] activity limitation; [CONDITION] work limitation; [CONDITION] disability; [CONDITION] employment

Terms used for condition: back pain, amputation, limb loss, osteoarthritis, rheumatoid arthritis, multiple sclerosis, traumatic brain injury, concussion, spinal cord injury, stroke. Note that organizations focused on a single condition (e.g. National Multiple Sclerosis Society) were only searched for the relevant condition. Similarly, organizations focused only on a single outcome (e.g. MEPS is focused on medical cost) were only searched for the relevant outcome.

Additional Grey Literature Search Strategy

- HCUP statistical briefs were reviewed manually for relevant titles
- MEPS summary tables for medical conditions were queried for relevant conditions ("back problems" and "osteoarthritis and other non-traumatic joint disorders")
- National Health and Nutrition Examination Survey archive of past publications was reviewed manually for relevant titles
- NCHS data briefs reviewed manually by keyword
- National Spinal Cord Injury Statistic Center:
 - Publications Database reviewed manually for relevant titles
 - Facts and Figures archive reviewed manually for relevant data

SUPPLEMENT 2: QUALITY GRADING FORMS

Modified MORE Observational Studies of Incidence or Prevalence of Chronic Diseases

1. Define and Justify Target Population: All US, Adult-specific (Sub-National: Major Flaw)
 2. Response Rate: Justify acceptable response rate: 40% is the minimum. Anything below 40% is a Major Flaw. Unreported response rate is a Major Flaw.
 3. Exclusion Rate from Analysis: N/A
 4. Source of Measure Incidence/Prevalence of Chronic Diseases:
 - Claims Database: Major flaw
 - Crude Prevalence: Minor flaw
 - Unreported Crude/Adjusted: Minor flaw
 - Proxy-Reported: Minor flaw
-
1. Reference Period: N/A
 2. Severity: N/A
 3. Frequency of Symptoms of the Chronic Disease in Definition of the Outcome: N/A
 4. Dependent Variable in Sub-populations: N/A

Descriptive

1. Condition *

Mark only one oval.

- Amputation
- Back Pain
- Multiple Sclerosis
- Osteoarthritis
- Rheumatoid Arthritis
- Arthritis
- Spinal Cord Injury
- Stroke
- Traumatic brain injury

2. Article ID *

3. Journal of Publication *

4. Year of Publication *

5. Funding of Study *

Mark only one oval.

- Not Reported - POOR REPORTING
- Industry
- Grant (includes grants received from government, agencies, and other non-industry sponsors)
- Combined Industry + Grant
- Government (i.e. government research group receiving government funds)
- Other: _____

6. Conflict of Interest *

Mark only one oval.

- Disclosure not reported - POOR REPORTING
- Reported not having conflict of interest
- Reported having significant conflict of interest - MINOR FLAW
- Other: _____

7. Primary Aim of the Study *

Mark only one oval.

- Aim was not stated - POOR REPORTING
- Included prevalence estimation in general population
- Included prevalence estimation in racial/sex/other population subgroups
- Included prevalence estimation without clear target population - MINOR FLAW
- Included incidence estimation in the general population
- Included incidence estimation in racial/sex/other population subgroups
- Included incidence estimation without clear target population - MINOR FLAW

8. Study Design *

Mark only one oval.

- Not clearly stated - POOR REPORTING
- Cross-sectional
- Retrospective
- Prospective
- Other: _____

External Validity

Assesses the generalizability of the article to the general, US population (population of interest for the purposes of the study).

9. Population-based sampling *

Mark only one oval.

- Not reported - POOR REPORTING
- Random, General population-based
- Random, Multistage and/or Stratified, General population-based
- Non-random, General population-based - MINOR FLAW
- Random, Non-general population-based (e.g. random sampling restricted to geographic area) - MINOR FLAW
- Non-random, non-general population-based sampling - MAJOR FLAW
- Other: _____

10. Population-based sampling frame *

Mark only one oval.

- Not reported - POOR REPORTING
- Sampling within nationally representative frame
- Sampling within non-nationally representative frame - MINOR FLAW
- Insurance claims - MAJOR FLAW
- Work place - MAJOR FLAW
- Health-care based (clinics, hospitals) - MAJOR FLAW
- Proxy selection (parents, relatives, legal representatives, care takers, etc.)
- Self selection
- Other: _____

11. Assessment of Sampling Bias *

Mark only one oval.

- No information about sampling bias - POOR REPORTING
- Sampling bias was assessed by the authors - Differences in study population vs target population are reported OR justified exclusion of the subjects from the sampling or analysis
- Other: _____

12. Estimate Bias: Response rate in total sample. *

Mark only one oval.

- Not reported - POOR REPORTING
- <40% - MAJOR FLAW
- 40-60%
- >60%
- Not applicable (e.g. claims database)
- Other: _____

13. Address Bias: Sampling bias is addressed in the analysis *

Mark only one oval.

- National sample with weighting of the estimates by age, sex, and race of US population
- National sample without weighting of the estimates by age, sex, and race of US population - MINOR FLAW
- Non-national sample with weighting of the estimates to the US population
- Non-national sample without adjustment to the US population OR unreported - MAJOR FLAW
- Other: _____

Internal Validity

Assesses the overall integrity of the article for the aims that it laid out for itself.

14. Primary source of measure incidence/prevalence of chronic diseases *

Mark only one oval.

- Not reported - POOR REPORTING
- Self-reported (collected for the study)
- Proxy-reported (collected for the study) - MINOR FLAW
- Obtained during clinical exam or objectively measured with diagnostic methods for the purpose of the study
- Obtained from medical records or insurance claims - MINOR FLAW
- Obtained from registries or administrative databases (epidemiological evaluation independent of healthcare)
- Other: _____

15. Reference Period *

Mark only one oval.

- Reference period not defined - POOR REPORTING
- Reference period is not relevant to study design (Prevalence)
- Reference period of at least 1 year (Incidence)
- Reference period of less than 1 year (Incidence) - MINOR FLAW
- Other: _____

16. Severity *

Mark only one oval.

- Severity is not defined - POOR REPORTING
- Severity is defined or appropriately omitted
- Other: _____

17. Frequency of Symptoms of the Chronic Disease *

Mark only one oval.

- Frequency is not defined - POOR REPORTING
- Frequency is defined or appropriately omitted
- Other: _____

18. Validation *

Mark only one oval.

- No information about validation - POOR REPORTING
- Variables were validated OR compared to previously validated methods (e.g. inter-methods validation, previously published research, by comparison to "gold standard")
- Authors did not sufficiently justify methodology - MAJOR FLAW
- Other: _____

19. Reliability of the Estimates *

Mark only one oval.

- Not reported - POOR REPORTING
- Reliability assumed acceptable
- Reliability is questionable - MINOR FLAW
- Other: _____

20. Reporting of prevalence

Mark only one oval.

- Not clear - POOR REPORTING
- Point prevalence - MINOR FLAW (only for back pain)
- Period prevalence
- Not applicable
- Other: _____

21. Precision of estimate of prevalence (Error, 95% CI, or other)

Mark only one oval.

- Omitted - POOR REPORTING
- Reported
- Not applicable
- Other: _____

22. Prevalence in total sample

Mark only one oval.

- Crude prevalence - MINOR FLAW
- Adjusted prevalence
- Not applicable
- Other: _____

23. Reporting of incidence

Mark only one oval.

- Unclear - POOR REPORTING
- Cumulative incidence
- Incidence rate
- Not applicable
- Other: _____

24. Precision of estimate of incidence (error, 95% CI)

Mark only one oval.

- Omitted - POOR REPORTING
- Reported
- Not applicable
- Other: _____

25. Incidence in total sample

Mark only one oval.

- Crude incidence - MINOR FLAW
 - Adjusted incidence
 - Not applicable
 - Other: _____
-

Modified Newcastle-Ottawa Quality Assessment for Cost-of-Illness Studies

* Required

Descriptive

1. Condition *

Mark only one oval.

- Amputation
- Back Pain
- Multiple Sclerosis
- Osteoarthritis
- Rheumatoid Arthritis
- Arthritis
- Spinal Cord Injury
- Stroke
- Traumatic Brain Injury

2. Article ID *

3. Journal of Publication *

4. Year of Publication *

Selection

5. 1. Representativeness of the Cohort with Condition *

Mark only one oval.

- Truly representative (1 *)
- Somewhat representative - Selected from Medicare, Medicaid, or large commercial insurance database (1 *)
- Single center study
- No description of the derivation of the cohort

6. 2. Selection of the Comparison Cohort without Condition (the Control Population) *

Mark only one oval.

- Drawn from the same community as the cohort with the illness of interest (1 *)
- Drawn from a different source
- No description of the derivation of the cohort without the illness of interest OR no comparison cohort

7. 3. Definition of the illness of interest *

Mark only one oval.

- 2 codes in claims or diagnosis by an appropriate medical professional (1 *)
- 1 code in claims (1 *)
- Patient self-report
- No description
- Other

Comparability

Comparability of cohorts on the basis of design or analysis controlled for confounders

8. Analysis of costs controls for confounders *

Mark only one oval.

- The study controls for age and sex (1 *)
- Does not adequately control for confounders.

9. Analysis of costs controls for confounders

Mark only one oval.

- The study controls for other factors (1*)
- Does not control for other factors

Cost Outcomes

10. Assessment of Cost *

Mark only one oval.

- Complete accounting and description of included costs and their sources (1 *)
- Weak description of sources of cost, but not self-reported (1 *)
- Self-reported
- No description of sources of cost
- Other

11. Follow-up for cost accounting was at least one year *

Mark only one oval.

Yes (1 *)

No

Thresholds for converting the Newcastle-Ottawa scales to AHRQ standards (good, fair, and poor):

Good quality: 3 stars in the selection domain AND 1 or 2 stars in the comparability domain AND 2 stars in the cost outcomes domain

Fair quality: 2 stars in the in selection domain AND 1 or 2 stars in the comparability domain AND 2 stars in the cost outcomes domain

Poor quality: 0 or 1 star in the selection domain OR 0 stars in the comparability domain OR 0 or 1 stars in the cost outcomes domain

SUPPLEMENT 3: RESULTS OF QUALITY GRADING

Individual Item Kappa and Responses for Modified Methodological Evaluation of Observational Research (n=36)					
Item	Kappa	No Flaw and Reported	Not Reported	Minor Flaw	Major Flaw
Funding of Study	0.52 (0.04-1)	73.5%	26.5%	0.0%	0.0%
Conflict of Interest	1.00	73.5%	23.5%	2.9%	0.0%
Primary Aim of the Study	0.68 (0.28-1)	100.0%	0.0%	0.0%	0.0%
Study Design	1.00	100.0%	0.0%	0.0%	0.0%
Population-based Sampling	1.00	50.0%	0.0%	44.1%	5.9%
Population-based Sampling Frame	1.00	44.1%	0.0%	38.2%	17.6%
Assessment of Sampling Bias	0.41 (0-1)	70.6%	29.4%	0.0%	0.0%
Estimate Bias: Response rate in Total Sample.	0.32 (0-0.65)	85.3%	8.8%	0.0%	5.9%
Address Bias: Sampling bias is Addressed in the Analysis	0.32 (0-0.80)	52.9%	0.0%	20.6%	26.5%
Primary Source of Measure Incidence/prevalence of Chronic Diseases	1.00	47.1%	0.0%	52.9%	0.0%
Reference Period	1.00	100.0%	0.0%	0.0%	0.0%
Severity	NA	100.0%	0.0%	0.0%	0.0%
Frequency of Symptoms of the Chronic Disease	NA	100.0%	0.0%	0.0%	0.0%
Validation	NA	70.6%	20.6%	0.0%	8.8%
Reliability of the Estimates	NA	88.2%	8.8%	2.9%	0.0%
Reporting of Prevalence	0.85 (0.52-1)	73.5%	0.0%	26.5%	0.0%
Precision of Estimate of Prevalence (Error, 95% CI, or other)	1.00	67.6%	32.4%	0.0%	0.0%
Prevalence in Total Sample	0.63 (0.14-1)	91.2%	0.0%	8.8%	0.0%
Reporting of incidence	0.79 (0.40-1)	100.0%	0.0%	0.0%	0.0%
Precision of Estimate of Incidence (error, 95% CI)	0.76 (0.24-1)	73.5%	26.5%	0.0%	0.0%
Incidence in Total Sample	0.76 (0.24-1)	79.4%	0.0%	20.6%	0.0%

Individual Survey Item Kappa and Responses for Modified Newcastle-Ottawa Quality Assessment (n=36)

Item	Kappa	Earned Point	No Point
Representativeness of the Cohort with Condition	0.78 (0.33-1)	97.4%	2.6%
Selection of the Comparison Cohort without Condition (the Control Population)	1	28.2%	71.8%
Definition of the Illness of Interest	0.73684 (0.19-1)	94.9%	5.1%
Analysis of Costs Controls for Confounders	1	46.2%	53.8%
Analysis of Costs Controls for Confounders2	1	41.0%	59.0%
Assessment of Cost	0.52381 (0.0-1.0)	100.0%	0.0%
Follow-up for Cost Accounting was at Least One Year	NA	97.4%	2.6%

Journal Pre-proof