Supplementary File – A scorecard for osteoporosis in Canada and seven Canadian provinces

Appendix S1: Database Search Strategies ................................................................. 2
Appendix S2: PRISMA .......................................................................................... 6
Appendix S3: Provincial Reimbursement Policies .................................................... 7
Appendix S1: Database Search Strategies

Ovid Multifile

Database: Embase <1974 to 2018 October 05>, Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily <1946 to October 05, 2018>

Search Strategy:

------------------------------------------------------------------------------------------------------------------
1     exp Osteoporosis/ (169537)
2     osteopor*.tw,kf. (172444)
3     bone loss*.tw,kf. (59655)
4     Bone Density/ (132606)
5     (bone? adj3 densit*).tw,kf. (120362)
6     bmd.tw,kf. (69856)
7     Bone Diseases, Metabolic/ (9104)
8     Bone Demineralization, Pathologic/ (2652)
9     (bone? adj3 (calcifi* or deminerali*)).tw,kf. (10273)
10    or/1-9 [OSTEOPOROSIS] (354563)
11    exp Child/ not (Adolescent/ or exp Adult/) (2193324)
12    exp Infant/ not (Adolescent/ or exp Adult/) (1315343)
13    10 not (11 or 12) [CHILD-, INFANT-ONLY REMOVED] (345134)
14    exp Canada/ (308200)
15    canada.cp. (526675)
16    (canada or canadian$ or alberta or british columbia or col?mbie brit?an?ique).af. (2451058)
17    (saskatchewan or manitoba or ontario or quebec or new brunswick or nouveau brunswick).af. (725177)
18    (nova scotia or nouvelle ecosse or prince edward island or ile du prince edward or newfoundland or terre neuve or labrador or nunv?t or nunv?t or nwt or territoires du nord ouest or northwest territories or yukon).af. (56600)
19    (canada or canadian$ or alberta or british columbia or col?mbie brit?an?ique).in,jw,nw. (2037416)
20    (saskatchewan or manitoba or ontario or quebec or new brunswick or nouveau brunswick).in,jw,nw. (642673)
21    (nova scotia or nouvelle ecosse or prince edward island or ile du prince edward or newfoundland or terre neuve or labrador or nunv?t or nunv?t or nwt or territoires du nord ouest or northwest territories or yukon).in,jw,nw. (42266)
22    (Vancouver or Victoria or Calgary or Edmonton or Regina or Saskatoon or Winnipeg or Toronto or Hamilton or Ottawa or Montreal or "St. John" or Fredericton or Halifax or Dartmouth or Charlottetown or "St. John's").af. (2106063)
23    (Whitehorse or Yellowknife or Iqaluit).af. (1090)
24    (Vancouver or Victoria or Calgary or Edmonton or Regina or Saskatoon or Winnipeg or Toronto or Hamilton or Ottawa or Montreal or "St. John" or Fredericton or Halifax or Dartmouth or Charlottetown or "St. John's").in,jw,nw. (1815565)
25    (Whitehorse or Yellowknife or Iqaluit).in,jw,nw. (879)
26    (First Nation or First Nations or Inuit or Metis).af. (7626)
27    (First Nation or First Nations or Inuit or Metis).in,jw,nw. (1020)
28    or/14-27 [CANADA FILTER] (3069677)
29    13 and 28 [OSTEOPOROSIS - CANADA] (21174)
------------------------------------------------------------------------------------------------------------------
exp ANIMALS/ not (exp ANIMALS/ and HUMANS/) (16122695)
29 not 30 [ANIMAL-ONLY REMOVED] (12808)
(comment or editorial or news or newspaper article).pt. (1836716)
(letter not (letter and randomized controlled trial)).pt. (2030188)
31 not (32 or 33) [OPINION PIECES REMOVED] (12189)
limit 34 to yr="2010-current" (5095)
35 use ppez [MEDLINE RECORDS] (3223)
exp osteoporosis/ (169537)
osteopor*.tw,kw. (178762)
bone loss*.tw,kw. (60087)
bone density/ (132606)
(bone? adj3 densit*).tw,kw. (121599)
bmd.tw,kw. (70121)
metabolic bone disease/ (11442)
bone demineralization/ (2600)
(bone? adj3 (calcifi* or deminerali*)).tw,kw. (10340)
or/37-45 [OSTEOPOROSIS] (357812)
exp adolescent/ not exp adult/ (1073035)
exp child/ not exp adult/ (286035)
46 not (47 or 48) [ADOLESCENT-/CHILD-/INFANT-ONLY REMOVED] (340872)
exp Canada/ (308200)
canada.cp. (526675)
(canada or canadian$ or alberta or british columbia or columbia britannique).af. (2451058)
(saskatchewan or manitoba or ontario or quebec or new brunswick or nouveau brunswick).af. (725177)
nova scotia or nouvelle ecosse or prince edward island or ile du prince edward or newfoundland or terre neuve or labrador or nun?v?t or nun?v?t or nwt or territoires du nord ouest or northwest territories or yukon).af. (56600)
(canada or canadian$ or alberta or british columbia or col?mbie brit?an?ique).in,jx. (1835331)
(saskatchewan or manitoba or ontario or quebec or new brunswick or nouveau brunswick).in,jx. (635827)
nova scotia or nouvelle ecosse or prince edward island or ile du prince edward or newfoundland or terre neuve or labrador or nun?v?t or nun?v?t or nwt or territoires du nord ouest or northwest territories or yukon).in,jx. (41705)
(Vancouver or Victoria or Calgary or Edmonton or Regina or Saskatoon or Winnipeg or Toronto or Hamilton or Ottawa or Montreal or "St. John" or Fredericton or Halifax or Dartmouth or Charlottetown or "St. John's").af. (2106063)
(Whitehorse or Yellowknife or Iqaluit).af. (1090)
(Vancouver or Victoria or Calgary or Edmonton or Regina or Saskatoon or Winnipeg or Toronto or Hamilton or Ottawa or Montreal or "St. John" or Fredericton or Halifax or Dartmouth or Charlottetown or "St. John's").in,jx. (1809960)
(Whitehorse or Yellowknife or Iqaluit).in,jx. (879)
(First Nation or First Nations or Inuit or Metis).af. (7626)
(First Nation or First Nations or Inuit or Metis).in,jx. (1012)
or/50-63 [CANADA FILTER] (3069677)
49 and 64 [OSTEOPOROSIS - CANADA] (20798)
exp animal/ or animal experimentation/ or exp animal model/ or exp animal experiment/ or nonhuman/ or exp vertebrate/ (46658192)
67 exp human/ or exp human experimentation/ or exp human experiment/ (36149770)
68 66 not 67 (10509954)
69 65 not 68 [ANIMAL-ONLY REMOVED] (18246)
70 editorial.pt. (1047383)
71 letter.pt. not (letter.pt. and randomized controlled trial/) (2025290)
72 69 not (70 or 71) [OPINION PIECES REMOVED] (17518)
73 conference abstract.pt. (3164612)
74 72 not 73 [CONFERENCE ABSTRACTS REMOVED] (14319)
75 limit 74 to yr="2010-current" (7201)
76 75 use oemezd [EMBASE RECORDS] (4063)
77 36 or 76 [BOTH DATABASES] (7286)
78 limit 77 to english (7226)
79 limit 78 to yr="2015-current" (3363)
80 remove duplicates from 79 (2212)
81 78 not 79 (3863)
82 remove duplicates from 81 (2693)
83 80 or 82 [TOTAL UNIQUE RECORDS] (4905)
84 83 use ppez [MEDLINE UNIQUE RECORDS] (3188)
85 83 use oemezd [EMBASE UNIQUE RECORDS] (1717)

Cochrane Library
Search Name: Osteoporosis - Canada
Date Run: 07/10/2018 18:29:37
Comment: 2018 Oct 7 - Conference abstracts removed - Date limits 2010 - present

ID Search Hits
#1 MeSH descriptor: [Osteoporosis] explode all trees 3686
#2 osteoporo*:ti,ab,kw 8094
#3 (bone next loss*):ti,ab,kw 3812
#4 MeSH descriptor: ["Bone Density"] explode all trees 4374
#5 (bone* near/3 densit*):ti,ab,kw 9132
#6 bmd:ti,ab,kw 4673
#7 MeSH descriptor: ["Bone Diseases, Metabolic"] explode all trees 440
#8 MeSH descriptor: ["Bone Demineralization, Pathologic"] explode all trees 16
#9 (bone* near/3 (calcifi* or deminerali*)):ti,ab,kw 314
#10 {or #1-#9} 14928
#11 MeSH descriptor: [Child] explode all trees 477
#12 MeSH descriptor: [Infant] explode all trees 13195
#13 #10 not (#11 OR #12) 14828
#14 MeSH descriptor: [Canada] explode all trees 3229
#15 (canada or canadian* or alberta or "british columbia" or "columbie britannique"):ti,ab,kw 11646
#16 (saskatchewan or manitoba or ontario or quebec or "new brunswick" or "nouveau brunswick"):ti,ab,kw 5163
("nova scotia" or "nouvelle ecosse" or "prince edward island" or "ile du prince edward" or newfoundland or "terre neuve" or labrador or nunavut or nwt or "territoires du nord ouest" or "northwest territories" or yukon):ti,ab,kw 200

{or #14-#17} 15449

#19  #13 AND #18 288

#20  Conference Abstract:pt 121946

#21  #19 NOT #20 with Cochrane Library publication date between Jan 2010 and Dec 2018 163

DSR - 2
CENTRAL - 161
Appendix S2: PRISMA

Figure S1. PRISMA flow diagram of study selection

4,919 records identified through database searching (MEDLINE, Embase, Cochrane)

4,919 titles/abstracts screened

4,806 titles/abstracts excluded

113 full-text articles reviewed

48 full-text articles excluded
Exclusion reasons:
23 outcomes
16 population
6 country/setting
3 study design

73 additional references included
Sources:
69 grey literature
4 hand-searching

138 references extracted

97 references excluded from scorecard

41 references used in the scorecard*
Sources:
32 grey literature
5 literature review
4 hand-searching

* Following data extraction, 41 of the 138 references were determined to be relevant and were used to directly inform the scorecard.
Appendix S3: Provincial Reimbursement Policies

Table S1. Provincial Drug Plan Formularies

| Province       | Source                                                         |   |
|----------------|----------------------------------------------------------------|---|
| British Columbia | British Columbia PharmaCare Special Authority                 | [1] |
| Alberta         | Interactive Drug Benefit List                                  | [2] |
| Saskatchewan    | Saskatchewan Online Formulary Database                        | [3] |
| Ontario         | Ontario Drug Benefit Formulary/Comparative Drug Index          | [4] |
| Quebec          | Codes des médicaments d'exception                              | [5] |
|                 | Liste des médicaments                                         | [6] |
| New Brunswick   | New Brunswick Drug Plans Formulary                             | [7] |
| Newfoundland    | The Newfoundland and Labrador Prescription Drug Program        | [8] |

Table S2. Provincial DXA Reimbursement Policies

| Province            | Source                                                                 |   |
|---------------------|------------------------------------------------------------------------|---|
| British Columbia    | BC Guidelines Osteoporosis: Diagnosis, Treatment and Fracture Prevention | [9] |
| Alberta             | Schedule of Medical Benefits                                           | [10] |
| Saskatchewan        | Payment Schedule for Insured Services Provided by a Physician Fully Covered Services | [11] |
|                     |                                                                       | [12] |
| Ontario             | Physician Services Under the Health Insurance Act                     | [13] |
| Quebec              | Health Insurance: Medical Services                                     | [14] |
| New Brunswick       | Medicare and Drug Plans: Coverage and Claims – Inside New Brunswick    | [15] |
| Newfoundland        | Medical Payment Schedule                                               | [16] |
Reference List

1. Government of British Columbia (2019) Special Authority. https://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/pharmacare/prescribers/special-authority#Druglist. Accessed 26 November 2019
2. Government of Alberta (2019) Interactive Drug Benefit List. https://idbl.ab.bluecross.ca/idbl/load.do. Accessed 26 November 2019
3. Government of Saskatchewan (2019) Saskatchewan Online Formulary Database. http://formulary.drugplan.health.gov.sk.ca/SearchFormulary. Accessed 26 November 2019
4. Ontario Ministry of Health (2019) Ontario Drug Benefit Formulary/Comparative Drug Index. https://www.formulary.health.gov.on.ca/formulary/. Accessed 26 November 2019
5. Régie de l'assurance maladie du Québec (2019) Codes des médicaments d'exception http://www.ramq.gouv.qc.ca/SiteCollectionDocuments/professionnels/medicaments/codes-medicaments-exception/codes_medicaments_exception.pdf. Accessed 26 November 2019
6. Régie de l'assurance maladie du Québec (2019) Liste des médicaments. http://www.ramq.gouv.qc.ca/SiteCollectionDocuments/liste_med/2019/liste_med_2019_11_14_fr.pdf. Accessed 6 December 2019
7. Medavie Blue Cross on Behalf of the Government of New Brunswick (2019) New Brunswick Drug Plans Formulary. https://www2.gnb.ca/content/dam/gnb/Departments/hgs/pdf/en/NBDrugPlan/NewBrunswickDrugPlansFormulary.pdf. Accessed 6 December 2019
8. Government of Newfoundland and Labrador (2015) The Newfoundland and Labrador Prescription Drug Program https://www.health.gov.nl.ca/health/prescription/special_auth_drug_products.pdf. Accessed 6 December 2019
9. British Columbia Ministry of Health (2012) Osteoporosis: Diagnosis, Treatment and Fracture Prevention. https://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/bc-guidelines/osteoporosis. Accessed 25 January 2019
10. Government of Alberta (2019) Schedule of Medical Benefits. https://www.alberta.ca/fees-health-professionals.aspx#toc-0. Accessed 6 December 2019
11. Government of Saskatchewan (2018) Payment Schedule for Insured Services Provided by a Physician. https://www.ehealthsask.ca/services/resources/Resources/physician-payment-schedule-apr-18.pdf. Accessed 6 December 2019
12. Government of Saskatchewan (2019) Fully Covered Services. https://www.saskatchewan.ca/residents/health/prescription-drug-plans-and-health-coverage/health-benefits-coverage/fully-covered-services. Accessed 6 December 2019
13. Ontario Ministry of Health (2019) Physician Services Under the Health Insurance Act. http://www.health.gov.on.ca/en/pro/programs/ohip/sob/. Accessed 6 December 2019
14. Régie de l'assurance maladie du Québec (2019) Health Insurance: Medical Services. http://www.ramq.gouv.qc.ca/en/citizens/health-insurance/covered-services/Pages/medical-services.aspx. Accessed 6 December 2019
15. Government of New Brunswick (2019) Medicare and Drug Plans: Coverage and Claims - Inside New Brunswick. https://www2.gnb.ca/content/gnb/en/departments/health/MedicarePrescriptionDrugPlan/content/medicare/CoverageandClaimsInsideNewBrunswick.html. Accessed 6 December 2019
16. Department of Health & Community Services (2013) Medical Payment Schedule. https://www.health.gov.nl.ca/health/mcp/healthplancoverage.html. Accessed 6 December 2019