

**Electronic Supplementary Material (ESM) to:**  
**Prevalence of type 2 diabetes among global Indigenous adult**  
**populations: a systematic review**

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## ESM Methods

### Database Search Strategies

#### Medline & Embase

| #  | Query                                                                                                          |
|----|----------------------------------------------------------------------------------------------------------------|
| 1  | exp diabetes mellitus, type 2/                                                                                 |
| 2  | exp diabetes mellitus/                                                                                         |
| 3  | exp noncommunicable diseases/                                                                                  |
| 4  | type 2 diabetes.ab,ti.                                                                                         |
| 5  | type 2 diabetes mellitus.ab,ti.                                                                                |
| 6  | type 2 dm.ab,ti.                                                                                               |
| 7  | t2dm.ab,ti.                                                                                                    |
| 8  | "type ii diabet*".ab,ti.                                                                                       |
| 9  | "type-ii diabet*".ab,ti.                                                                                       |
| 10 | t2d.ab.                                                                                                        |
| 11 | 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10                                                                |
| 12 | exp prevalence/                                                                                                |
| 13 | prevalence.ab,ti.                                                                                              |
| 14 | "prevalen*".ab,ti.                                                                                             |
| 15 | "screen*".ab,ti.                                                                                               |
| 16 | exp cross-sectional studies/                                                                                   |
| 17 | cross sectional.ab,ti.                                                                                         |
| 18 | cross-sectional.ab,ti.                                                                                         |
| 19 | 12 or 13 or 14 or 15 or 16 or 17 or 18                                                                         |
| 20 | 11 and 19                                                                                                      |
| 21 | exp Indigenous Peoples/                                                                                        |
| 22 | Indigenous Peoples.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]     |
| 23 | indigenous population*.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx] |
| 24 | indigenous.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]             |
| 25 | indigen*.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]               |
| 26 | aborig*.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                |
| 27 | aboriginal*.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]            |
| 28 | aboriginal.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]             |
| 29 | atsi.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                   |
| 30 | australoid.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]             |
| 31 | native people.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]          |
| 32 | original inhabitants.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]   |
| 33 | first people.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]           |
| 34 | first nation.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]           |
| 35 | torres strait*.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]         |
| 36 | maori.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                  |

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|    |                                                                                                                                                                                        |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 37 | maori-polynesian.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                               |
| 38 | melanesia*.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                                     |
| 39 | pacific island*.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                                |
| 40 | inuit.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                                          |
| 41 | exp alaska natives/                                                                                                                                                                    |
| 42 | alaska natives.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                                 |
| 43 | alaska* india*.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                                 |
| 44 | american indian.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                                |
| 45 | north american indian.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                          |
| 46 | indians, north american.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                        |
| 47 | aotearoa.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                                       |
| 48 | tangata whenua.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                                 |
| 49 | metis.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                                          |
| 50 | native american.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                                |
| 51 | native canadian.mp. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kf, fx, dq, bt, nm, ox, px, rx, ui, sy, ux, mx]                                                                                |
| 52 | 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 |
| 53 | animal.ab,ti.                                                                                                                                                                          |
| 54 | animals.ab,ti.                                                                                                                                                                         |
| 55 | rat.ab,ti.                                                                                                                                                                             |
| 56 | rats.ab,ti.                                                                                                                                                                            |
| 57 | mice.ab,ti.                                                                                                                                                                            |
| 58 | mouse.ab,ti.                                                                                                                                                                           |
| 59 | monkey.ab,ti.                                                                                                                                                                          |
| 60 | monkeys.ab,ti.                                                                                                                                                                         |
| 61 | trial.ab,ti.                                                                                                                                                                           |
| 62 | trials.ab,ti.                                                                                                                                                                          |
| 63 | case-control.ab,ti.                                                                                                                                                                    |
| 64 | case control.ab,ti.                                                                                                                                                                    |
| 65 | case series.ab,ti.                                                                                                                                                                     |
| 66 | case report.ti.                                                                                                                                                                        |
| 67 | genetic.ab,ti.                                                                                                                                                                         |
| 68 | editorial.ab,ti.                                                                                                                                                                       |
| 69 | covid-19.ab,ti.                                                                                                                                                                        |
| 70 | coronavirus.ab,ti.                                                                                                                                                                     |
| 71 | inpatient.ab,ti.                                                                                                                                                                       |
| 72 | patient.ab,ti.                                                                                                                                                                         |
| 73 | patients.ab,ti.                                                                                                                                                                        |

## Prevalence of type 2 diabetes among global Indigenous adult populations: a systematic review

|    |                                                                                                                            |
|----|----------------------------------------------------------------------------------------------------------------------------|
| 74 | 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 or 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73 |
| 75 | 20 and 52                                                                                                                  |
| 76 | 75 not 74                                                                                                                  |
| 77 | limit 76 to yr="2020-Current"                                                                                              |
| 78 | remove duplicates from 77                                                                                                  |

### CINAHL

((MH "Diabetes Mellitus, Type 2+") OR (MH "Diabetes Mellitus+") OR (MH "Noncommunicable Diseases") OR AB type 2 diabetes OR TI type 2 diabetes OR AB type 2 diabetes mellitus OR TI type 2 diabetes mellitus OR AB type 2 dm OR TI type 2 dm OR AB t2dm OR TI t2dm OR AB type ii diabet\* OR TI type ii diabet\* OR AB type-ii diabet\* OR TI type-ii diabet\* OR AB t2d) AND

((MH "Prevalence") OR (MH "Cross-Sectional Studies") OR AB prevalence OR TI prevalence OR AB prevalen\* OR TI prevalen\* OR AB screen\* OR TI screen\* OR AB cross sectional OR TI cross sectional OR AB cross-sectional OR TI cross-sectional)

AND ((MH "Indigenous Peoples") OR "Indigenous Peoples" OR Indigenous OR indigen\* OR aborig\* OR aboriginal\* OR aboriginal OR ATSI OR Australoid OR native people OR Original inhabitants OR First people OR First Nation OR OR Torres strait\* OR Maori OR Māori OR maori-polynesian OR Melanesia\* OR pacific island\* OR inuit OR (MH "Alaska Natives") OR "Alaska Natives" OR Alaska\* india\* OR American Indian OR North American Indian OR (MH "Indians, North American") OR Aotearoa OR tangata whenua OR Metis OR Métis OR Native American OR Native Canadian) )

NOT(ABanimalORTIanimalORABratORTIratORABratsORTIratsORABmiceOR TI mice OR AB mouse OR TI mouse OR AB monkey OR TI monkey OR AB monkeys OR TI monkeys OR AB trial OR TI trial OR AB trials OR TI trials OR AB case-control OR TI case-control OR AB case control OR TI case control OR AB case series OR TI case series OR TI case series OR AB genetic OR TI genetic OR AB editorial OR TI editorial OR AB covid-19 OR TI covid-19 OR AB coronavirus OR TI coronavirus OR TI hospital OR AB inpatient OR TI inpatient OR AB patient OR TI patient OR AB patients OR TI patients)

## Prevalence of type 2 diabetes among global Indigenous adult populations: a systematic review

Diabetes in Indigenous Populations Special Interest Group of the International Diabetes Federation  
Diabetes Atlas Working Group Members

International team (listed alphabetically) of Indigenous and non-Indigenous professionals and researchers from the United States, Canada, Australia, Aotearoa New Zealand and Brazil.

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10. Dr. Hiliary Monteith, Department of Nutritional Sciences, University of Toronto.
11. The Late Dr. Laercio Joel Franco, University of Sao Paulo, Brazil.
12. Prof. Louise Maple Brown, Menzies School of Health and Research, Charles Darwin University, Darwin, Northern Territory, Australia and, Endocrinology Department, Royal Darwin Hospital, Northern Territory, Australia.
13. Dr. Odette Pearson, *Eastern Kuku-Yalanji and Zenadth Kes (Torres Strait Islander)*, South Australian Health and Medical Research Institute, University of Adelaide, North Terrace, Adelaide, Australia and, Faculty of Health and Medical Sciences, University of Adelaide, North Terrace, Adelaide, Australia.

### Modified Newcastle Ottawa Quality Assessment Scale

#### Quality score

Our modified scale includes criteria that assesses the representativeness of Indigenous study populations, response rates, methods used to assess the outcome of interest, and whether adjusted, standardized, or crude prevalence is reported. The maximum score is 10 points, and final scores are defined as low quality (**0-3 points**), medium quality (**4-7 points**), or high quality (**8-10 points**).

#### Selection (Maximum 5 points):

1. Representative of the intended Indigenous population(s):
  - a. *Truly representative* of the Indigenous population(s) (e.g., local/community population-based, Tribal-census data used to determine sampling strategy, random sampling, oversampling of Indigenous populations for larger population data (regional, province, state, national), or additional methods applied to ensure the sample was representative such as engagement/consultation with Indigenous leadership for larger regional/national surveys or administrative databases). **(3 points)**
  - b. *Somewhat representative* of the Indigenous population(s) (e.g.: Indian Health Service medical record data, convenience sampling with  $\geq 60\%$  response rates, additional methods were not applied to ensure representativeness). **(2 points)**
  - c. Selected population group (e.g., hospital-based records, administrative data (without clearly described engagement/consultation, etc.)). **(1 point)**
  - d. Insufficient information to determine representativeness. **(0 points)**
2. Response rate
  - a. The response rate is  $\geq 80\%$ . **(2 points)**
  - b. The response rate is  $\geq 60\%$ . **(1 point)**
  - c. The response rate is not applicable (e.g., Electronic Medical Record data). **(1 point)**
  - d. The response rate is  $< 60\%$ , or no description. **(0 points)**

#### Outcome (Maximum 4 points):

3. Assessment of the outcome:
  - a. Screening for diabetes prevalence (FPG, OGTT, HbA1c) **(4 points)**
  - b. Only Capillary (Fasting) **(3 points)**
  - c. Administrative algorithm where at least two criteria are used **(3 points)**
  - d. Record linkage to obtain ICD codes **(2 points)**
  - e. Random glucose measurement and/or Only Capillary (Random) **(1 point)**
  - f. Diabetes Medication **(1 point)**
  - g. Self-report **(1 point)**
  - h. No description **(0 points)**

#### Comparability (Maximum 1 point):

4. Is the reported prevalence adjusted/standardized?
  - a. Yes **(1 point)**
  - b. No, crude only. **(0 points)**

**Maximum score = 10 points**

# Prevalence of type 2 diabetes among global Indigenous adult populations: a systematic review

## ESM Tables

ESM Table 1. Overall Indigenous adult type 2 diabetes prevalence

| IDF Region | Author, pub. year (citation) | Year(s) of study | Indigenous Nation/ Tribe/ population             | Location/country                         | Country | Sample size (N) | Combined | 95% CI    | Age group | Men | Women | */c/N R |
|------------|------------------------------|------------------|--------------------------------------------------|------------------------------------------|---------|-----------------|----------|-----------|-----------|-----|-------|---------|
| NAC        | Middaugh, 1991 (1)           | 1984-1986        | Alaska Native                                    | Alaska                                   | USA     | >200            | 1.4%     | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Acton, 1993 (2)              | 1986             | 6 Montana & Wyoming Tribes                       | MT & WY                                  | USA     | 22,040          | 11.9%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Acton, 1993 (2)              | 1986             | Blackfeet                                        | Blackfeet                                | USA     | 4,125           | 16.8%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Acton, 1993 (2)              | 1986             | Crow                                             | Crow                                     | USA     | 5,150           | 8.5%     | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Acton, 1993 (2)              | 1986             | Assiniboin/ Gros Venture                         | Fort Belknap                             | USA     | 1,949           | 11.8%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Acton, 1993 (2)              | 1986             | Assiniboin                                       | Fort Peck                                | USA     | 3,584           | 17.3%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Acton, 1993 (2)              | 1986             | Northern Cheyenne                                | Northern Cheyenne                        | USA     | 3,502           | 5.9%     | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Acton, 1993 (2)              | 1986             | Shoshone/Arapaho                                 | Wind River                               | USA     | 3,730           | 12.5%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Sugarman, 1989 (3)           | 1986-1987        | Navajo                                           | Arizona                                  | USA     | 494             | 10.2%    | NR        | 20+       | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | 10 Pacific Northwest (PNW) Tribal Nations        | PNW Reservations                         | USA     | 28,954          | 3.8%     | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | Shoshone-Bannock                                 | Fort Hall, Idaho                         | USA     | 28,954          | 9.5%     | 8.4-10.5% | All Ages  | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | Warm Springs                                     | Warm Springs, Oregon                     | USA     | 28,954          | 7.5%     | 6.1-8.9%  | All Ages  | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | Nez Perce                                        | Nez Perce, Idaho                         | USA     | 28,954          | 10.5%    | 8.8-12.1% | All Ages  | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | Yakima                                           | Yakima, Washington                       | USA     | 28,954          | 7.5%     | 6.7-8.3%  | All Ages  | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | Umatilla                                         | Umatilla, Oregon                         | USA     | 28,954          | 6.5%     | 5.2-7.8%  | All Ages  | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | Spokane                                          | Spokane, Washington                      | USA     | 28,954          | 5.6%     | 3.8-7.4%  | All Ages  | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | Colville                                         | Colville, Washington                     | USA     | 28,954          | 5.2%     | 4.1-6.3%  | All Ages  | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | Makah                                            | Makah, Washington                        | USA     | 28,954          | 5.3%     | 3.5-7.2%  | All Ages  | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | Quinault                                         | Quinault                                 | USA     | 28,954          | 5.0%     | 3.2-6.7%  | All Ages  | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | Lummi                                            | Lummi, Washington                        | USA     | 28,954          | 4.0%     | 3.0-5.0%  | All Ages  | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | Shoshone-Bannock & Warm Springs                  | Great Basin                              | USA     | 28,954          | 8.8%     | 7.9-9.6%  | All Ages  | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | Nez Perce, Yakima, Umatilla, Spokane, & Colville | Plateau                                  | USA     | 28,954          | 7.2%     | 6.7-7.8%  | All Ages  | NR  | NR    | *       |
| NAC        | Freeman, 1989 (4)            | 1987             | Makah, Quinault, & Lummi                         | Northwest Coast                          | USA     | 28,954          | 4.5%     | 3.7-5.3%  | All Ages  | NR  | NR    | *       |
| NAC        | Valway, 1993 (5)             | 1987             | AI/AN                                            | IHS Service Units                        | USA     | 1,016,815       | 8.87%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Valway, 1993 (5)             | 1987             | AI/AN                                            | Tucson                                   | USA     | NR              | 11.92%   | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Valway, 1993 (5)             | 1987             | AI/AN                                            | Great Plains/Aberdeen                    | USA     | NR              | 10.54%   | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Valway, 1993 (5)             | 1987             | AI/AN                                            | Phoenix                                  | USA     | NR              | 10.43%   | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Valway, 1993 (5)             | 1987             | AI/AN                                            | Albuquerque                              | USA     | NR              | 9.38%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Valway, 1993 (5)             | 1987             | AI/AN                                            | Bemidji                                  | USA     | NR              | 9.16%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Valway, 1993 (5)             | 1987             | AI/AN                                            | Nashville                                | USA     | NR              | 8.68%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Valway, 1993 (5)             | 1987             | AI/AN                                            | Billings                                 | USA     | NR              | 8.59%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Valway, 1993 (5)             | 1987             | AI/AN                                            | Oklahoma                                 | USA     | NR              | 5.99%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Valway, 1993 (5)             | 1987             | AI/AN                                            | Navajo                                   | USA     | NR              | 5.62%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Valway, 1993 (5)             | 1987             | AI/AN                                            | Portland                                 | USA     | NR              | 4.86%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Valway, 1993 (5)             | 1987             | AI/AN                                            | Alaska                                   | USA     | NR              | 1.53%    | NR        | All Ages  | NR  | NR    | *       |
| NAC        | Stahn, 1993 (6)              | 1987-1988        | AI/AN                                            | North Dakota, South Dakota, and Nebraska | USA     | 870,095         | 6.90%    | NR        | All Ages  | NR  | NR    | *       |

# Prevalence of type 2 diabetes among global Indigenous adult populations: a systematic review

| IDF Region | Author, pub. year (citation) | Year(s) of study | Indigenous Nation/ Tribe/ population   | Location/country                  | Country | Sample size (N) | Combined | 95% CI    | Age group | Men   | Women | *c/N R |
|------------|------------------------------|------------------|----------------------------------------|-----------------------------------|---------|-----------------|----------|-----------|-----------|-------|-------|--------|
| NAC        | Stahn, 1993 (6)              | 1987-1988        | Cheyenne River                         | South Dakota                      | USA     | 5,634           | 10.58%   | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Stahn, 1993 (6)              | 1987-1988        | Crow Creek /Lower Brule                | South Dakota                      | USA     | 4,138           | 8.32%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Stahn, 1993 (6)              | 1987-1988        | Fort Totten - Devil's Lake             | South Dakota                      | USA     | 3,427           | 11.14%   | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Stahn, 1993 (6)              | 1987-1988        | Pine Ridge - Oglala                    | South Dakota                      | USA     | 17,128          | 6.98%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Stahn, 1993 (6)              | 1987-1988        | Rosebud                                | South Dakota                      | USA     | 9,062           | 8.15%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Stahn, 1993 (6)              | 1987-1988        | Sisseton/Wahpeton                      | South Dakota                      | USA     | 4,502           | 6.39%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Stahn, 1993 (6)              | 1987-1988        | Turtle Mountain                        | North Dakota                      | USA     | 9,617           | 10.45%   | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Stahn, 1993 (6)              | 1987-1988        | Standing Rock                          | North Dakota                      | USA     | 6,600           | 12.54%   | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Stahn, 1993 (6)              | 1987-1988        | Yankton/ Santee                        | South Dakota                      | USA     | 2,791           | 19.64%   | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Stahn, 1993 (6)              | 1987-1988        | Winnebago/ Omaha                       | Nebraska                          | USA     | 4,688           | 21.81%   | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Muneta, 1993 (7)             | 1988-1989        | Native American                        | National                          | USA     | 768             | 11.6%    | 7.8-15.4% | 18+       | 9.3%  | 13.8% | *      |
| NAC        | Will, 1997 (8)               | 1991-1992        | Navajo                                 | Navajo Reservation                | USA     | 575             | 22.9%    | NR        | 20+       | 19.4% | 24.6% | *WH O  |
| NAC        | Will, 1997 (8)               | 1991-1992        | Navajo                                 | Navajo Reservation                | USA     | 575             | 21.3%    | NR        | 20+       | 18.6% | 22.3% | *ND DG |
| NAC        | Aluli, 2009 (9)              | 1992-1998        | Native Hawaiian                        | North Kohala, Hawai'i and Kaua'i  | USA     | 862             | NR       | NR        | 18+       | 25.1% | 22.6% | *      |
| NAC        | Schraer, 1997 (10)           | 1993             | Alaska Native                          | Alaska                            | USA     | 93,842          | 1.92%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Schraer, 1997 (10)           | 1993             | Inupiaq & Yup'ik                       | Alaska                            | USA     | 48,620          | 1.21%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Schraer, 1997 (10)           | 1993             | Athabaskan, Tlingit, Haida & Tsimshian | Alaska                            | USA     | 34,214          | 2.43%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Schraer, 1997 (10)           | 1993             | Aleut                                  | Alaska                            | USA     | 11,007          | 3.26%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Schraer, 1997 (10)           | 1993             | Tsimshian                              | Annette Island, Alaska            | USA     | 1,295           | 4.49%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Schraer, 1997 (10)           | 1993             | Tlingit/Haida                          | Mount Edgecumbe, Alaska           | USA     | 12,612          | 3.27%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Schraer, 1997 (10)           | 1993             | Alaska Native                          | Anchorage, Alaska                 | USA     | 28,567          | 2.13%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Schraer, 1997 (10)           | 1993             | Athabaskan                             | Interior, Alaska                  | USA     | 10,765          | 2.02%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Schraer, 1997 (10)           | 1993             | Inupiaq                                | Kotzebue, Alaska                  | USA     | 6,434           | 1.83%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Schraer, 1997 (10)           | 1993             | Yup'ik                                 | Bristol Bay, Alaska               | USA     | 4,834           | 1.68%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Schraer, 1997 (10)           | 1993             | Inupiaq                                | Barrow, Alaska                    | USA     | 3,871           | 1.52%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Schraer, 1997 (10)           | 1993             | Inupiaq                                | Norton Sound, Alaska              | USA     | 6,687           | 1.26%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Schraer, 1997 (10)           | 1993             | Yup'ik                                 | Yukon-Kuskokwim, Alaska           | USA     | 18,777          | 0.84%    | NR        | All Ages  | NR    | NR    | *      |
| NAC        | Grandinetti, 1998 (11)       | 1993-1996        | Native Hawaiian                        | Hawaii                            | USA     | 574             | 22.4%    | NR        | 30+       | 22.3% | 22.2% | *      |
| NAC        | de Courten, 1996 (12)        | 1994             | Akimel O'odham & Tohono O'odham        | Arizona                           | USA     | 4,315           | 39.0%    | NR        | 18+       | NR    | NR    | *      |
| NAC        | Ebbesson, 1999 (13)          | 1994             | Yup'ik & Inupiaq                       | St. Lawrence Island, Alaska       | USA     | 454             | 6.6%     | NR        | 25+       | 4.2%  | 8.8%  | c      |
| NAC        | Jolly, 2014 (14)             | 1994-2004        | Yukon Kuskokwim AN                     | Yukon Kuskokwim, Alaska           | USA     | 2,650           | 5.0%     | NR        | 18+       | NR    | NR    | *      |
| NAC        | Jolly, 2014 (14)             | 1994-2004        | Alaska Native                          | Norton Sound, Alaska              | USA     | 1,919           | 5.0%     | NR        | 18+       | NR    | NR    | *      |
| NAC        | Gilliland, 1999 (15)         | 1995-1997        | American Indian                        | New Mexico                        | USA     | 1,273           | 8.8%     | 6.3-11.2% | 18+       | 8.3%  | 9.2%  | *      |
| NAC        | Aminov, 2016 (16)            | 1995-2000        | Mohawk                                 | Mohawk Nation                     | USA     | 601             | 18.47%   | NR        | 18+       | NR    | NR    | c      |
| NAC        | CDC-MMWR, 1998 (17)          | 1996             | AI/AN                                  | IHS Service Units                 | USA     | 63,400          | 10.9%    | NR        | 20+       | 9.7%  | 12.0% | *      |
| NAC        | Daw, 2017 (18)               | 1997-2009        | AI/AN                                  | National USA                      | USA     | 909             | 3.17%    | NR        | 18+       | NR    | NR    | c      |
| NAC        | Levin, 2001 (19)             | 1998             | Catawba                                | North Carolina and South Carolina | USA     | 633             | 12.3%    | NR        | 18+       | NR    | NR    | *      |
| NAC        | Scavini, 2003 (20)           | 1999-2002        | Zuni                                   | New Mexico                        | USA     | 1,503           | NR       | NR        | 20+       | 18.0% | 27.5% | *      |

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| IDF Region | Author, pub. year (citation)  | Year(s) of study       | Indigenous Nation/ Tribe/ population   | Location/country                      | Country | Sample size (N) | Combined | 95% CI       | Age group | Men   | Women | *c/N R |
|------------|-------------------------------|------------------------|----------------------------------------|---------------------------------------|---------|-----------------|----------|--------------|-----------|-------|-------|--------|
| NAC        | Carter, 2006 (21)             | 2000-2004              | Inupiat & Yupik                        | Norton Sound, Alaska                  | USA     | 1,214           | 5.1%     | NR           | 18+       | 3.0%  | 6.6%  | *AD A  |
| NAC        | Carter, 2006 (21)             | 2000-2004              | Inupiat & Yupik                        | Norton Sound, Alaska                  | USA     | 1,214           | 6.9%     | NR           | 18+       | 3.9%  | 9.1%  | *WH O  |
| NAC        | Chiem, 2006 (22)              | 2001                   | Chamorro                               | San Diego County, California          | USA     | 228             | 16.2%    | NR           | 18+       | 12.0% | 19.5% | c      |
| NAC        | McNeely, 2004 (23)            | 2001                   | Native American                        | National                              | USA     | 2,299           | 11.8%    | NR           | 30+       | NR    | NR    | *      |
| NAC        | McNeely, 2004 (23)            | 2001                   | Pacific Islander                       | National                              | USA     | 626             | 13.8%    | NR           | 30+       | NR    | NR    | *      |
| NAC        | Liao, 2004 (24)               | 2001-2002              | American Indian                        | Oklahoma and North Carolina           | USA     | 1,791           | NR       | NR           | 18+       | 16.2% | 19.5% | *      |
| NAC        | CDC-MMWR, 2003 (25)           | 2002                   | AI/AN                                  | National USA                          | USA     | >200            | 15.3%    | NR           | 20+       | 14.5% | 15.9% | *      |
| NAC        | Hodge, 2011 (26)              | 2002-2003              | American Indian                        | 13 Reservation Sites, California      | USA     | 457             | 18.4%    | NR           | 18+       | NR    | NR    | c      |
| NAC        | Reid, 2010 (27)               | 2002-2006              | AI/AN                                  | California                            | USA     | 10,351          | 15%      | NR           | 18+       | 16%   | 14%   | *      |
| NAC        | Oser, 2005 (28)               | 2003                   | American Indian                        | Montana                               | USA     | 998             | 15.8%    | NR           | 18+       | 16 %  | NR    | *      |
| NAC        | Wu, 2005 (29)                 | 2003                   | Chamorro                               | San Diego, California                 | USA     | 228             | 16.2%    | NR           | 18+       | 12.0% | 19.5% | c      |
| NAC        | Holm, 2010 (30)               | 2004                   | American Indian                        | North Dakota                          | USA     | 404             | 13.8%    | 10.4-17.2%   | 18+       | 15.0% | 13.0% | *      |
| NAC        | Cabassa, 2011 (31)            | 2004-2005              | AI/AN                                  | National USA                          | USA     | 578             | 12.3%    | NR           | 18+       | NR    | NR    | *      |
| NAC        | Barnes, 2010 (32)             | 2004-2008              | AI/AN                                  | National USA                          | USA     | 132,203         | 17.5%    | NR           | 18+       | 18.2% | 16.2% | *      |
| NAC        | Harjo, 2011 (33)              | 2005                   | Native American                        | California                            | USA     | 554             | 14.9%    | NR           | 18+       | 16.8% | 13.4% | *      |
| NAC        | Blue Bird Jernigan, 2010 (34) | 2005-2006              | AI/AN                                  | National USA                          | USA     | 11,104          | 8.5%     | NR           | 18+       | 8.4%  | 8.7%  | *      |
| NAC        | Blue Bird Jernigan, 2010 (34) | 2005-2006              | AI/AN                                  | Southwest                             | USA     | 1766            | 8.5%     | NR           | 18+       | NR    | NR    | *      |
| NAC        | Blue Bird Jernigan, 2010 (34) | 2005-2006              | AI/AN                                  | Pacific Coast                         | USA     | 1493            | 7.8%     | NR           | 18+       | NR    | NR    | *      |
| NAC        | Blue Bird Jernigan, 2010 (34) | 2005-2006              | AI/AN                                  | North Plains                          | USA     | 2822            | 8.8%     | NR           | 18+       | NR    | NR    | *      |
| NAC        | Blue Bird Jernigan, 2010 (34) | 2005-2006              | AI/AN                                  | East                                  | USA     | 4110            | 8.3%     | NR           | 18+       | NR    | NR    | *      |
| NAC        | Blue Bird Jernigan, 2010 (34) | 2005-2006              | AI/AN                                  | Alaska                                | USA     | 913             | 8.2%     | NR           | 18+       | NR    | NR    | *      |
| NAC        | Subica, 2017 (35)             | 2005, 2007, 2009, 2011 | NHOPIs                                 | California                            | USA     | 320             | 9.67%    | 6.21-14.80%  | 18+       | NR    | NR    | *      |
| NAC        | Subica, 2017 (35)             | 2005, 2007, 2009, 2011 | AI/AN                                  | California                            | USA     | 1,581           | 17.06%   | 12.95-22.14% | 18+       | NR    | NR    | *      |
| NAC        | Narayanan, 2010 (36)          | 2006                   | Alaska Native                          | Alaska                                | USA     | 120,488         | 4.76%    | NR           | All Ages  | 4.43% | 5.08% | *      |
| NAC        | Narayanan, 2010 (36)          | 2006                   | Yup'ik, Cup'ik, Inupiaq & Siberian     | St. Lawrence Island, Alaska           | USA     | 120,488         | 3.43%    | NR           | All Ages  | NR    | NR    | *      |
| NAC        | Narayanan, 2010 (36)          | 2006                   | Athabaskan, Tsimshian, Tlingit & Haida | South Eastern Alaska                  | USA     | 120,488         | 5.24%    | NR           | All Ages  | NR    | NR    | *      |
| NAC        | Narayanan, 2010 (36)          | 2006                   | Aleut & Alutiiq                        | Aleutian and Pribilof Islands, Alaska | USA     | 120,488         | 8.98%    | NR           | All Ages  | NR    | NR    | *      |
| NAC        | Narayanan, 2010 (36)          | 2006                   | Alaska Native                          | South-east Alaska 1                   | USA     | 1,289           | 10.95%   | NR           | All Ages  | NR    | NR    | *      |
| NAC        | Narayanan, 2010 (36)          | 2006                   | Alaska Native                          | South-east Alaska 2                   | USA     | 14,357          | 6.36%    | NR           | All Ages  | NR    | NR    | *      |
| NAC        | Narayanan, 2010 (36)          | 2006                   | Alaska Native                          | South-central Alaska                  | USA     | 41,883          | 5.78%    | NR           | All Ages  | NR    | NR    | *      |
| NAC        | Narayanan, 2010 (36)          | 2006                   | Alaska Native                          | Interior Alaska                       | USA     | 13,198          | 5.53%    | NR           | All Ages  | NR    | NR    | *      |
| NAC        | Narayanan, 2010 (36)          | 2006                   | Alaska Native                          | North-west Alaska                     | USA     | 7,601           | 4.47%    | NR           | All Ages  | NR    | NR    | *      |
| NAC        | Narayanan, 2010 (36)          | 2006                   | Alaska Native                          | South-west Alaska                     | USA     | 5,684           | 4.04%    | NR           | All Ages  | NR    | NR    | *      |
| NAC        | Narayanan, 2010 (36)          | 2006                   | Alaska Native                          | North-west Alaska                     | USA     | 7,989           | 3.22%    | NR           | All Ages  | NR    | NR    | *      |

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|------------|------------------------------|------------------|--------------------------------------------------------|---------------------------------|---------|-----------------|----------|--------------|-----------|--------|--------|--------|
| NAC        | Narayanan, 2010 (36)         | 2006             | Alaska Native                                          | North coast Alaska              | USA     | 4,981           | 2.99%    | NR           | All Ages  | NR     | NR     | *      |
| NAC        | Narayanan, 2010 (36)         | 2006             | Alaska Native                                          | South-west Alaska               | USA     | 23,506          | 2.39%    | NR           | All Ages  | NR     | NR     | *      |
| NAC        | Choi, 2013 (37)              | 2009             | Native American                                        | California                      | USA     | 481             | NR       | NR           | 18+       | 32.40% | 16.00% | *      |
| NAC        | Liao, 2011 (38)              | 2009             | Eastern Band of Cherokee Indians                       | North Carolina                  | USA     | 228             | NR       | NR           | 18+       | 30.4%  | 23.4%  | *      |
| NAC        | Liao, 2011 (38)              | 2009             | Choctaw                                                | Oklahoma                        | USA     | 1,052           | NR       | NR           | 18+       | 11.6%  | 16.2%  | *      |
| NAC        | Liao, 2011 (38)              | 2009             | American Indian                                        | Michigan                        | USA     | 349             | NR       | NR           | 18+       | 23.1%  | 20.6%  | *      |
| NAC        | Liao, 2011 (38)              | 2009             | American Indian                                        | Oklahoma                        | USA     | 830             | NR       | NR           | 18+       | 12.9%  | 15.4%  | *      |
| NAC        | Karter, 2013 (39)            | 2010             | Hawaiian, Guamanian, Samoan, or other Pacific Islander | California                      | USA     | 7,732           | 18.27%   | 17.44-19.10% | 18+       | NR     | NR     | *      |
| NAC        | Karter, 2013 (39)            | 2010             | Native American                                        | California                      | USA     | 9,546           | 13.38%   | 12.74-14.02% | 18+       | NR     | NR     | *      |
| NAC        | Kirtland, 2015 (40)          | 2011-2014        | NHPI                                                   | California                      | USA     | 224             | 19.1%    | 13.5-26.4%   | 18+       | NR     | NR     | *      |
| NAC        | Kirtland, 2015 (40)          | 2011-2014        | NHPI                                                   | Hawaii                          | USA     | 930             | 13.9%    | 11.1-17.3%   | 18+       | NR     | NR     | *      |
| NAC        | Kirtland, 2015 (40)          | 2011-2014        | NHPI                                                   | Washington                      | USA     | 202             | 17.8%    | 11.3-26.7%   | 18+       | NR     | NR     | *      |
| NAC        | Kirtland, 2015 (40)          | 2011-2014        | NHPI                                                   | Guam                            | USA     | 2,923           | 15.7%    | 14.0-17.7%   | 18+       | NR     | NR     | *      |
| NAC        | Kirtland, 2015 (40)          | 2011-2014        | NHPI                                                   | National USA                    | USA     | 6,520           | 14.3%    | 12.1-16.7%   | 18+       | NR     | NR     | *      |
| NAC        | Kirtland, 2015 (40)          | 2011-2014        | NHPI                                                   | 5 US States & Guam              | USA     | 4,573           | 16.4%    | 13.2-20.2%   | 18+       | 16.5%  | 16.1%  | *      |
| NAC        | Uchima, 2019 (41)            | 2011, 2013, 2015 | NHOPIs                                                 | Hawaii                          | USA     | 2,469           | 9.9%     | 8.6-11.3%    | 18+       | 8.6%   | 8.9%   | *      |
| NAC        | Love, 2018 (42)              | 2013             | Chickasaw & Choctaw                                    | Oklahoma                        | USA     | 513             | 25%      | NR           | 18+       | NR     | NR     | *      |
| NAC        | Towne, 2017 (43)             | 2015             | AI/AN                                                  | National USA                    | USA     | 441,456         | 16.68%   | NR           | 18+       | NR     | NR     | *      |
| NAC        | Bullock, 2020 (44)           | 2017             | AI/AN                                                  | IHS Regions                     | USA     | 1,034,814       | 14.6%    | 14.1-15.2%   | 18+       | 14.5%  | 14.7%  | *      |
| NAC        | Bullock, 2020 (44)           | 2017             | AI/AN                                                  | Alaska                          | USA     | 111,760         | 5.8%     | 5.5-6.1%     | 18+       | NR     | NR     | *      |
| NAC        | Bullock, 2020 (44)           | 2017             | AI/AN                                                  | California                      | USA     | 53,810          | 10.4%    | 9.8-11.0%    | 18+       | NR     | NR     | *      |
| NAC        | Bullock, 2020 (44)           | 2017             | AI/AN                                                  | Northwest                       | USA     | 75,541          | 10.2%    | 9.5-10.9%    | 18+       | NR     | NR     | *      |
| NAC        | Bullock, 2020 (44)           | 2017             | AI/AN                                                  | Southwest Sub-region 1          | USA     | 199,719         | 16.9%    | 16.4-17.4%   | 18+       | NR     | NR     | *      |
| NAC        | Bullock, 2020 (44)           | 2017             | AI/AN                                                  | Southwest Sub-region 2          | USA     | 123,143         | 21.1%    | 19.6-22.6%   | 18+       | NR     | NR     | *      |
| NAC        | Bullock, 2020 (44)           | 2017             | AI/AN                                                  | Southern Plains                 | USA     | 260,773         | 14.8%    | 14.3-15.4%   | 18+       | NR     | NR     | *      |
| NAC        | Bullock, 2020 (44)           | 2017             | AI/AN                                                  | Northern Plains                 | USA     | 120,038         | 15.8%    | 15.0-16.5%   | 18+       | NR     | NR     | *      |
| NAC        | Bullock, 2020 (44)           | 2017             | AI/AN                                                  | Great Lakes                     | USA     | 54,845          | 13.6%    | 12.7-14.5%   | 18+       | NR     | NR     | *      |
| NAC        | Bullock, 2020 (44)           | 2017             | AI/AN                                                  | East                            | USA     | 35,184          | 20.4%    | 18.2-22.7%   | 18+       | NR     | NR     | *      |
| NAC        | Young, 1985 (45)             | 1983             | Oji-Cree                                               | Ontario and Manitoba            | Canada  | 385             | 2.75%    | 2.5-3.0%     | All Ages  | NR     | NR     | c      |
| NAC        | Evers, 1987 (46)             | 1985             | Oneida, Chippewa & Munsey                              | Ontario                         | Canada  | 1,179           | 14.7%    | N/A          | All Ages  | 15.5%  | 13.9%  | *      |
| NAC        | Horn, 2007 (47)              | 1986-2003        | Kahnawa:ke - Mohawk                                    | Quebec                          | Canada  | 631             | 7.7%     | 7.2-8.1%     | 18+       | 8.4%   | 7.1%   | *      |
| NAC        | Delisle, 1993 (48)           | 1989             | Algonquin                                              | 2 Algonquin Communities, Quebec | Canada  | 621             | 15.0%    | N/A          | All Ages  | 12.0%  | 17.0%  | c      |
| NAC        | Delisle, 1993 (48)           | 1989             | Algonquin                                              | Algonquin Community 1, Quebec   | Canada  | 621             | 9.0%     | 7-11%        | All Ages  | 8.0%   | 10.0%  | *      |
| NAC        | Delisle, 1993 (48)           | 1989             | Algonquin                                              | Algonquin Community 2, Quebec   | Canada  | 621             | 19.0%    | 16-21%       | All Ages  | 14.0%  | 23.0%  | *      |
| NAC        | Pioro, 1996 (49)             | 1990             | First Nations                                          | Saskatchewan                    | Canada  | 18,236          | 9.7%     | N/A          | 20+       | 7.2%   | 12.1%  | *      |
| NAC        | Bruce, 2003 (50)             | 1991             | First Nations                                          | Canada                          | Canada  | ~2,500          | NR       | N/A          | 25+       | 9.6%   | 12.4%  | *      |
| NAC        | Bruce, 2003 (50)             | 1991             | Inuit                                                  | Canada                          | Canada  | ~2,500          | NR       | N/A          | 25+       | 2.8%   | 4%     | *      |

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|------------|------------------------------|------------------|--------------------------------------|----------------------------------------------------------------------------------------------|---------|-----------------|----------|------------|-----------|--------|--------|--------|
| NAC        | Bruce, 2003 (50)             | 1991             | Métis                                | Canada                                                                                       | Canada  | ~2,500          | NR       | N/A        | 25+       | 7.1%   | 13%    | *      |
| NAC        | Bruce, 2003 (50)             | 1991             | Métis                                | Manitoba                                                                                     | Canada  | ~2,500          | NR       | N/A        | 25+       | 11.1%  | 12.6%  | *      |
| NAC        | Harris, 1997 (51)            | 1993-1995        | Oji-Cree                             | Ontario                                                                                      | Canada  | 728             | 26.1%    | N/A        | All Ages  | 24.2%  | 28%    | *      |
| NAC        | Johnson, 2002 (52)           | 1997             | First Nations                        | British Columbia (BC)                                                                        | Canada  | 24,407          | 2.6%     | 2.3-2.9%   | All Ages  | 2.3%   | 2.9%   | *      |
| NAC        | Johnson, 2002 (52)           | 1997             | First Nations                        | North Zone BC                                                                                | Canada  | 24,407          | 1.8%     | 1.4-2.2%   | All Ages  | 1.6%   | 2.0%   | *      |
| NAC        | Johnson, 2002 (52)           | 1997             | First Nations                        | South Zone BC                                                                                | Canada  | 24,407          | 3.0%     | 2.5-3.5%   | All Ages  | 2.7%   | 3.3%   | *      |
| NAC        | Green, 2003 (53)             | 1998             | First Nations                        | Manitoba                                                                                     | Canada  | 34,368          | NR       | N/A        | 20+       | 17.00% | 24.87% | *      |
| NAC        | Bruce, 2008 (54)             | 2003             | Sandy Bay First Nation               | Manitoba                                                                                     | Canada  | 483             | 29.0%    | N/A        | 18+       | 27%    | 31%    | c      |
| NAC        | Bruce, 2010 (55)             | 2003             | Manitoba First Nations               | Manitoba                                                                                     | Canada  | 483             | 29.0%    | N/A        | 18+       | NR     | NR     | c      |
| NAC        | Dyck, 2010 (56)              | 2005             | First Nations                        | Saskatchewan                                                                                 | Canada  | 8,275           | NR       | N/A        | 20+       | 16.01% | 20.30% | *      |
| NAC        | Oster, 2014 (57)             | 2005             | First Nations                        | Alberta                                                                                      | Canada  | >200            | 9.5%     | N/A        | 20+       | NR     | NR     | c      |
| NAC        | Bruce, 2014 (58)             | 2005-2008        | First Nations                        | Provinces & Territories                                                                      | Canada  | 831             | 5.2%     | 3.5-6.9%   | 20+       | NR     | NR     | c      |
| NAC        | Bruce, 2014 (58)             | 2005-2008        | Métis                                | Metis Provinces & Territories                                                                | Canada  | 216             | 5.7%     | 1.1-10.2%  | 20+       | NR     | NR     | c      |
| NAC        | Bruce, 2014 (58)             | 2005-2008        | Inuit                                | Provinces & Territories                                                                      | Canada  | 932             | 1.0%     | 0.4-1.6%   | 20+       | NR     | NR     | c      |
| NAC        | Johnson, 2009 (59)           | 2006             | First Nations                        | Alberta                                                                                      | Canada  | 35,929          | 14.7%    | NR         | 20+       | 12.2%  | 17.2%  | *      |
| NAC        | Pelletier, 2012 (60)         | 2006             | Inuit                                | Canada                                                                                       | Canada  | >200            | 4.0%     | NR         | All Ages  | NR     | NR     | c      |
| NAC        | Ralph-Campbell, 2009 (61)    | 2006             | Métis                                | Alberta                                                                                      | Canada  | 5,059           | 6.9%     | NR         | All Ages  | 6.1%   | 7.8%   | *      |
| NAC        | Egeland, 2011 (62)           | 2007-2008        | Inuit                                | Inuvialuit (North West Territories); Nunavut and Nunatsiavut, Northern Labrador Newfoundland | Canada  | 2,595           | 5.1%     | 3.8-6.4%   | 18+       | 4.5%   | 5.8%   | c      |
| NAC        | Hu, 2019 (63)                | 2007-2008        | Inuit                                | Nunatsiavut, Nunavut, and the Inuvialuit Settlement Region                                   | Canada  | 2,172           | NR       | NR         | 18+       | 4.4%   | 5.5%   | *      |
| NAC        | Pelletier, 2012 (60)         | 2008-2010        | First Nations                        | On-reserve                                                                                   | Canada  | >200            | 17.2%    | N/A        | 18+       | NR     | NR     | *      |
| NAC        | Batal, 2021 (64)             | 2008-2018        | First Nations                        | Reserve lands south of 60th parallel                                                         | Canada  | 5,328           | 19.0%    | N/A        | 19+       | 17.0%  | 21.0%  | *      |
| NAC        | Shah, 2011 (65)              | 2009             | Métis                                | Ontario                                                                                      | Canada  | 12,820          | 11.2%    | 10.6-11.8% | 18+       | NR     | NR     | *      |
| NAC        | Pelletier, 2012 (60)         | 2009-2010        | First Nations                        | Off-reserve                                                                                  | Canada  | >200            | 10.3%    | N/A        | All Ages  | NR     | NR     | *      |
| NAC        | Pelletier, 2012 (60)         | 2009-2010        | Métis                                | Canada                                                                                       | Canada  | >200            | 7.3%     | N/A        | All Ages  | NR     | NR     | *      |
| NAC        | Riediger, 2014 (66)          | 2011-2012        | Manitoba First Nations               | Manitoba                                                                                     | Canada  | 596             | NR       | NR         | 18+       | 24.8%  | 27.1%  | *      |
| NAC        | Marushka, 2017 (67)          | 2012             | Ontario First Nations                | Ontario                                                                                      | Canada  | 1,426           | 24.4%    | N/A        | 19+       | 23.5%  | 24.6%  | c      |
| NAC        | Marushka, 2017 (67)          | 2012             | Ontario First Nations                | Ontario                                                                                      | Canada  | 1,426           | 25.0%    | N/A        | 19+       | NR     | NR     | *      |
| NAC        | Dyck, 2015 (68)              | 2012-2013        | First Nations                        | Saskatchewan                                                                                 | Canada  | 874             | 12.8%    | N/A        | 18+       | 9.7%   | 15.8%  | c      |
| NAC        | Walker, 2020 (69)            | 2014             | First Nations                        | Ontario                                                                                      | Canada  | 158,241         | 16.6%    | 16.4-16.8% | All Ages  | NR     | NR     | *      |
| NAC        | Matsumoto, 2020 (70)         | 2014-2017        | First Nations                        | NW Ontario                                                                                   | Canada  | 16,170          | 14.4%    | N/A        | 18+       | NR     | NR     | *      |
| NAC        | Avery, 2022 (71)             | 2015-2016        | Indigenous                           | Toronto                                                                                      | Canada  | 897             | 15.0%    | 10.9-19.1% | All Ages  | NR     | NR     | c      |
| NAC        | Chan, 2021 (72)              | 2015-2016        | First Nations                        | Sioux Lookout Region, Ontario                                                                | Canada  | 18,542          | 12.9%    | 12.4-13.4% | All Ages  | NR     | NR     | c      |
| NAC        | Loria, 2020 (73)             | 2000             | San Rafael & Uci                     | Yucatan                                                                                      | Mexico  | 263             | 10.6%    | NR         | 18+       | NR     | NR     | c      |
| NAC        | Jimenez-Corona, 2019 (74)    | 2010-2012        | Indigenous                           | Comitan de Dominguez, Chiapas                                                                | Mexico  | 880             | 4.7%     | 3.3-6.1%   | 20+       | 3.5%   | 5.8%   | *      |
| NAC        | Jimenez-Corona, 2019 (74)    | 2010-2012        | Indigenous                           | Urban Comitan de Dominguez, Chiapas                                                          | Mexico  | 213             | 10.3%    | 6.3-14.4%  | 20+       | NR     | NR     | *      |
| NAC        | Jimenez-Corona, 2019 (74)    | 2010-2012        | Indigenous                           | Rural Comitan de Dominguez, Chiapas                                                          | Mexico  | 667             | 3.0%     | 1.7-4.4%   | 20+       | NR     | NR     | *      |

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|------------|------------------------------|------------------|--------------------------------------|-------------------------------------------------------|-----------|-----------------|----------|------------|-----------|--------|--------|--------|
| NAC        | Pacheco, 2018 (75)           | 2013-2014        | Indigenous & Mestizo                 | San Quintin, Baja California                          | Mexico    | 275             | 21.8%    | NR         | 18+       | 18.6%  | 22.9%  | c      |
| NAC        | Mendoza-Catalan, 2022 (76)   | 2020~            | Totonacs                             | Huehuetla, Caxhuacan, Ixtepec, and Zapotitlan, Puebla | Mexico    | 225             | 14.3%    | NR         | 20+       | NR     | NR     | c      |
| EUR        | McGorrian, 2012 (77)         | 2008-2009        | Irish Travellers                     | Ireland                                               | Ireland   | 1,878           | 10.9%    | 8.2-13.7%  | 18+       | NR     | NR     | *      |
| EUR        | Jorgensen, 2012 (78)         | 2005-2010        | Inuit                                | Greenland                                             | Greenland | 3,089           | 9.0%     | NR         | 18+       | NR     | NR     | NR     |
| EUR        | Viskum, 2016 (79)            | 2014             | Inuit                                | Greenland                                             | Greenland | 34,349          | 2.36%    | 2.19-2.52% | 20+       | 2.15%  | 2.17%  | *      |
| EUR        | Dogadin, 2001 (80)           | 1991-1996        | Northern Indigenous Peoples          | Taimir and Evenk' Autonomous Districts, Siberia       | Siberia   | 8,395           | 0.25%    | 0.15-0.36% | 18+       | NR     | NR     | *      |
| WP         | Cameron, 1986 (81)           | 1982-1983        | Aboriginal                           | Australia                                             | Australia | 294             | 15.6%    | NR         | 20+       | 16.6   | 15.6   | c      |
| WP         | Williams, 1987 (82)          | 1985             | Aboriginal                           | New South Wales                                       | Australia | 219             | 8.1%     | NR         | 18+       | 6.8%   | 9.7%   | *      |
| WP         | Williams, 1987 (82)          | 1985             | Aboriginal                           | New South Wales                                       | Australia | 219             | 8.10%    | NR         | 18+       | 7%     | 9.70%  | c      |
| WP         | Gault, 1996 (83)             | 1988             | Aboriginal                           | Central Australia                                     | Australia | 437             | 9%       | NR         | All Ages  | 10%    | 9%     | c      |
| WP         | Hoy, 1997 (84)               | 1992-1994        | Aboriginal                           | Tiwi Islands                                          | Australia | 438             | NR       | NR         | 20+       | 22.2%  | 11.9%  | c      |
| WP         | Wang, 2004 (85)              | 1992-1995        | Australian Aboriginal                | Tiwi Islands                                          | Australia | 915             | 15.6%    | NR         | 18+       | NR     | NR     | c      |
| WP         | Wang, 2003 (86)              | 1992-1998        | Aboriginal                           | Tiwi Islands                                          | Australia | 681             | NR       | NR         | 25+       | NR     | NR     | NR     |
| WP         | McDonald, 2003 (87)          | 1993             | Australian Aboriginal                | Northern Territory                                    | Australia | 237             | 24.9%    | NR         | 18+       | 25.0%  | 24.8%  | NR     |
| WP         | Leonard, 2002 (88)           | 1993-1997        | Torres Strait Islander               | Torres Strait                                         | Australia | 592             | 26.2%    | NR         | All Ages  | NR     | NR     | NR     |
| WP         | Wang, 2007 (89)              | 1993-1997        | Aboriginal                           | Cape York, Torres Strait, Kimberley                   | Australia | 747             | 23.00%   | 20-26%     | 25+       | NR     | NR     | c      |
| WP         | Wang, 2007 (89)              | 1993-1997        | Torres Strait Islander               | Cape York, Torres Strait, Kimberley                   | Australia | 439             | 33.00%   | 29-38%     | 25+       | NR     | NR     | c      |
| WP         | McDermott, 2000 (90)         | 1995             | Aboriginal                           | Central Australia                                     | Australia | 305             | 20.70%   | 17.7-22.2% | All Ages  | NR     | NR     | c      |
| WP         | Rowley, 2000 (91)            | 1995             | Australian Aboriginal                | Central Australia                                     | Australia | 424             | 8.6%     | NR         | All Ages  | 7.0%   | 6.0%   | ADA    |
| WP         | Rowley, 2000 (91)            | 1995             | Australian Aboriginal                | Central Australia                                     | Australia | 424             | NR       | NR         | All Ages  | 8.0%   | 11.0%  | WHO    |
| WP         | Guest, 1992 (92)             | 1996             | Aboriginal                           | South eastern Australia                               | Australia | 306             | 7.8%     | NR         | All Ages  | 8.8%   | 7.2%   | c      |
| WP         | Thompson, 2003 (93)          | 1998-1999        | Australian Aboriginal                | Perth                                                 | Australia | 738             | 17.6%    | NR         | 18+       | 16.0%  | 19.0%  | c      |
| WP         | McCulloch, 2003 (94)         | 1998-2000        | Aboriginal                           | Far North Queensland                                  | Australia | 1,602           | NR       | NR         | All Ages  | 7.40%  | 14.80% | NR     |
| WP         | McCulloch, 2003 (94)         | 1998-2000        | Torres Strait Islander               | Far North Queensland                                  | Australia | 1,074           | NR       | NR         | All Ages  | 11.70% | 19.20% | NR     |
| WP         | Hoy, 2007 (95)               | 2000-2003        | Aboriginal                           | Community 1, Northern Territory                       | Australia | 814             | 17.0%    | NR         | 25+       | NR     | NR     | c      |
| WP         | Hoy, 2007 (95)               | 2000-2003        | Aboriginal                           | Community 2, Northern Territory                       | Australia | 814             | 21.0%    | NR         | 25+       | NR     | NR     | c      |
| WP         | Hoy, 2007 (95)               | 2000-2003        | Aboriginal                           | Community 3, Northern Territory                       | Australia | 814             | 30.0%    | NR         | 25+       | NR     | NR     | c      |
| WP         | Brimblecombe, 2006 (96)      | 2001-2002        | Indigenous Australian                | Northern Territory                                    | Australia | 332             | 12.0%    | 8.7-16.0%  | All Ages  | NR     | NR     | c      |
| WP         | Zhao, 2008 (97)              | 2001-2005        | Australian Aboriginal                | Northern Territory                                    | Australia | 29,687          | NR       | NR         | All Ages  | 7.5%   | 11.5%  | *      |
| WP         | O'Dea, 2008 (98)             | 2003-2004        | Aboriginal & Torres Strait Islander  | Northern Territory                                    | Australia | 719             | 13.8%    | NR         | All Ages  | NR     | NR     | c      |
| WP         | Arnold, 2016 (99)            | 2004-2006        | Indigenous Australian                | Indigenous Community, Northern Territory              | Australia | 1,187           | 18.9%    | NR         | All Ages  | NR     | NR     | c      |
| WP         | Brown, 2014 (100)            | 2008-2009        | Indigenous Australian                | Central Australia                                     | Australia | 436             | 34%      | NR         | 18+       | NR     | NR     | NR     |
| WP         | Jeffries-Stokes, 2020 (101)  | 2010-2014        | Aboriginal                           | Western Australia                                     | Australia | 424             | 29.5%    | NR         | All Ages  | 26.4%  | 31.8%  | NR     |
| WP         | Hare, 2022 (102)             | 2018-2019        | Aboriginal                           | Australia                                             | Australia | 21,267          | 28.6%    | 27.8-29.4% | 20+       | NR     | NR     | c      |

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|------------|------------------------------|----------------------|--------------------------------------|----------------------------------------------------------|--------------------------------|-----------------|----------|------------|-----------|-------|-------|--------|
| WP         | Simmons, 1994 (103)          | 1992                 | Māori                                | Otara                                                    | Aotearoa New Zealand           | 5,606           | 6.9%     | 6.0-7.9%   | All Ages  | NR    | NR    | *      |
| WP         | Simmons, 1999 (104)          | 1992-1995            | Māori                                | South Auckland                                           | Aotearoa New Zealand           | 17,580          | 7.3%     | 6.7-7.9%   | All Ages  | NR    | NR    | *      |
| WP         | Sundbom, 2007 (105)          | 2002-2003            | Māori                                | Auckland                                                 | Aotearoa New Zealand           | 1,014           | 15.8%    | NR         | All Ages  | NR    | NR    | *      |
| WP         | Halim, 2019 (106)            | 2002-2003, 2014-2015 | Māori                                | Auckland                                                 | Aotearoa New Zealand           | 11,035          | 6.86%    | 6.19-7.53% | 18+       | NR    | NR    | c      |
| WP         | Tipene-Leach, 2004 (107)     | 2003                 | Māori                                | Tolga Bay to Potaka, Rural East Coast, North of Gisborne | Aotearoa New Zealand           | 249             | 10.6%    | 6.8-14.4%  | 25+       | 9.7%  | 11.6% | *      |
| WP         | Chan, 2014 (108)             | 2004-2010            | Māori                                | Auckland                                                 | Aotearoa New Zealand           | 792,520         | NR       | NR         | All Ages  | 8.2%  | 7.0%  | *      |
| WP         | Smith, 2010 (109)            | 2006-2007            | Māori                                | Manukau, Northland, Waitemata, and Auckland              | Aotearoa New Zealand           | ~210,000        | NR       | NR         | All Ages  | 12.2% | 10.6% | *      |
| WP         | Joshy, 2007 (110)            | 2008                 | Māori                                | Rotorua                                                  | Aotearoa New Zealand           | 15,015          | 7.00%    | 6.99-7.01% | All Ages  | NR    | NR    | *      |
| WP         | Coppell, 2013 (111)          | 2008-2009            | Māori                                | Aotearoa New Zealand                                     | Aotearoa New Zealand           | 4,721           | 9.8%     | 7.4-12.2%  | All Ages  | NR    | NR    | *      |
| WP         | Winnard, 2012 (112)          | 2009                 | Māori                                | Aotearoa New Zealand                                     | Aotearoa New Zealand           | 3,036,093       | 9.8%     | NR         | 20+       | NR    | NR    | *      |
| WP         | King, 1986 (113)             | 1980                 | Cook Island Māori                    | Rarotonga                                                | Cook Islands                   | 1,102           | 6.7%     | NR         | 20+       | 5.3%  | 8.3%  | *      |
| WP         | King, 1986 (113)             | 1980                 | Niuean                               | Niue                                                     | Niue                           | 1,128           | 7.4%     | NR         | 20+       | 5.6%  | 8.6%  | *      |
| WP         | Shmulewitz, 2001 (114)       | 1994                 | Kosraen                              | Lelu, Malem, Tafunsek, Utwe & Welung villages            | Federated States of Micronesia | 2,188           | 12%      | NR         | 20+       | NR    | NR    | NR     |
| WP         | Murdock, 2013 (115)          | 2001                 | Kosraen                              | Kosrae Island                                            | Federated States of Micronesia | 3,106           | 21%      | NR         | 20+       | NR    | NR    | *      |
| WP         | Taylor, 1992 (116)           | 1980                 | iTaukei & Fijian Indian              | Fiji (Urban)                                             | Fiji                           | 2,638           | NR       | NR         | 20+       | 3.5%  | 7.1%  | NR     |
| WP         | Taylor, 1992 (116)           | 1980                 | iTaukei & Fijian Indian              | Fiji (Rural)                                             | Fiji                           | 2,638           | NR       | NR         | 20+       | 1.1%  | 1.2%  | NR     |
| WP         | King, 1984 (117)             | 1980                 | iTaukei                              | Fiji                                                     | Fiji                           | 239             | NR       | NR         | 20+       | 1.7%  | 1.7%  | c      |
| WP         | King, 1984 (117)             | 1980                 | iTaukei                              | Fiji                                                     | Fiji                           | 396             | NR       | NR         | 20+       | 4.8%  | 8.0%  | c      |
| WP         | King, 1984 (117)             | 1980                 | Fijian Indian                        | Fiji                                                     | Fiji                           | 212             | NR       | NR         | 20+       | 12.7% | 13.0% | c      |
| WP         | King, 1984 (117)             | 1980                 | Fijian Indian                        | Fiji                                                     | Fiji                           | 381             | NR       | NR         | 20+       | 14.2% | 12.6% | c      |
| WP         | Zimmet, 1983 (118)           | 1980                 | iTaukei & Fijian Indian              | Fiji                                                     | Fiji                           | 929             | 4.82%    | NR         | 20+       | 3.63% | 6%    | c      |
| WP         | Hoskins, 1987 (119)          | 1983                 | I-Taukei                             | Fiji                                                     | Fiji                           | 5,145           | NR       | NR         | 20+       | 8.2%  | 15.8% | *      |
| WP         | Hoskins, 1987 (119)          | 1983                 | Fijian Indian                        | Fiji                                                     | Fiji                           | 5,145           | NR       | NR         | 20+       | 17.0% | 24.3% | *      |
| WP         | Lako, 2001 (120)             | 1993                 | iTaukei (Urban)                      | Fiji                                                     | Fiji                           | 416             | 3.2%     | NR         | 18+       | NR    | NR    | c      |
| WP         | Lako, 2001 (120)             | 1993                 | iTaukei (Rural)                      | Fiji                                                     | Fiji                           | 778             | 1.4%     | NR         | 18+       | NR    | NR    | c      |
| WP         | Durand, 1997 (121)           | 1994                 | Chamorro                             | Mariana Islands                                          | Mariana Islands                | 796             | NR       | NR         | All Ages  | 3.1%  | 4.0%  | *      |
| WP         | Dowse, 1991 (122)            | 1987                 | Nauruan                              | Nauru                                                    | Nauru                          | 1,201           | 24.0%    | NR         | 20+       | 23.8% | 24.1% | *      |
| WP         | King, 1989 (123)             | 1985                 | Gimi, Bundi, & Asaro                 | Masilakaiufa, Highlands, Papua New Guinea                | Papua New Guinea               | 257             | 0.00%    | NR         | 20+       | 0.00% | 0.00% | c      |
| WP         | King, 1989 (123)             | 1985                 | Gimi, Bundi, & Asaro                 | Napapar, Highlands, Papua New Guinea                     | Papua New Guinea               | 269             | 0.70%    | NR         | 20+       | 1.60% | 0.00% | c      |

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|------------|------------------------------|------------------|--------------------------------------|-----------------------------------------------------|------------------|-----------------|----------|------------|-----------|-------|--------|--------|
| WP         | King, 1989 (123)             | 1985             | Gimi, Bundi, & Asaro                 | Matupit, Highlands, Papua New Guinea                | Papua New Guinea | 273             | 4.00%    | NR         | 20+       | 4.80% | 3.40%  | c      |
| WP         | King, 1991 (124)             | 1986             | Marup                                | Marup Community, Papua New Guinea                   | Papua New Guinea | 271             | 0.7%     | NR         | 20+       | NR    | NR     | *      |
| WP         | Dowse, 1994 (125)            | 1991             | Wanigela People (Urban)              | Koki, Port Moresby, Papua New Guinea                | Papua New Guinea | 664             | 30.1%    | NR         | 25+       | 28.4% | 32.1%  | c      |
| WP         | Dowse, 1994 (125)            | 1991             | Wanigela People (Rural)              | Wanigela and Kalo Villages, Papua New Guinea        | Papua New Guinea | 541             | 12.4%    | NR         | 25+       | 17.9% | 10.0%  | c      |
| WP         | Collins, 1994 (126)          | 1991             | Poutasi                              | Western Samoa                                       | Samoa            | 463             | NR       | N/A        | 25+       | 5.3%  | 5.6%   | *      |
| WP         | Collins, 1994 (126)          | 1991             | Tuasivi                              | Western Samoa                                       | Samoa            | 524             | NR       | N/A        | 25+       | 7.0%  | 7.5%   | *      |
| WP         | Collins, 1994 (126)          | 1991             | Apia                                 | Western Samoa                                       | Samoa            | 785             | NR       | N/A        | 25+       | 9.5%  | 13.4%  | *      |
| WP         | Tafuna'I, 2022 (127)         | 2019             | Samoaan                              | 15 Sites in Samoa                                   | Samoa            | 1,163           | 30.8%    | 28.1-33.5% | All Ages  | NR    | NR     | c      |
| WP         | Eason, 1987 (128)            | 1985             | Solomon Islanders & I-Kiribati       | Munda                                               | Solomon Islands  | 873             | NR       | NR         | 18+       | 0%    | 1.40%  | *      |
| WP         | Eason, 1987 (128)            | 1985             | Solomon Islanders & I-Kiribati       | Paradise                                            | Solomon Islands  | 330             | NR       | NR         | 18+       | 0%    | 1.50%  | *      |
| WP         | Eason, 1987 (128)            | 1985             | Solomon Islanders & I-Kiribati       | Solstar                                             | Solomon Islands  | 301             | NR       | NR         | 18+       | 0%    | 7.90%  | *      |
| WP         | Beizer, 1990 (129)           | 1985-1986        | Nagovisi                             | Solomon Islands                                     | Solomon Islands  | 269             | NR       | NR         | All Ages  | 0.00% | 0.00%  | c      |
| WP         | Furusawa, 2021 (130)         | 2017-2018        | Sasamunga                            | Solomon Islands                                     | Solomon Islands  | 384             | 1.8%     | NR         | 18+       | NR    | NR     | c      |
| WP         | Furusawa, 2021 (130)         | 2017-2018        | Taro                                 | Solomon Islands                                     | Solomon Islands  | 384             | 2.6%     | NR         | 18+       | NR    | NR     | c      |
| WP         | Furusawa, 2021 (130)         | 2017-2018        | Manuopo                              | Solomon Islands                                     | Solomon Islands  | 384             | 0.7%     | NR         | 18+       | NR    | NR     | c      |
| WP         | Colagiuri, 2002 (131)        | 1998-2000        | Tongan                               | Tongatapu, Vava'u and Haapai Islands                | Tonga            | 1,024           | 15.1%    | 12.5-17.6% | All Ages  | 15.1% | 17.60% | *      |
| WP         | Li, 2020 (132)               | 2015-2017        | Tibetan                              | 31 Provinces                                        | China            | 2,034           | 6.5%     | 6.1-6.9%   | 18+       | NR    | NR     | *      |
| WP         | Li, 2020 (132)               | 2015-2017        | Uyghur                               | 31 Provinces                                        | China            | 2,159           | 11.5%    | 9.6-13.6%  | 18+       | NR    | NR     | *      |
| WP         | Li, 2020 (132)               | 2015-2017        | Hui                                  | 31 Provinces                                        | China            | 1,661           | 6.3%     | 3.9-9.9%   | 18+       | NR    | NR     | *      |
| WP         | Li, 2020 (132)               | 2015-2017        | Zhuang                               | 31 Provinces                                        | China            | 1,962           | 11.4%    | 7.7-16.5%  | 18+       | NR    | NR     | *      |
| WP         | Ali, 1993 (133)              | 1991             | Orang Asli Aborigines                | Malaysia                                            | Malaysia         | 327             | 0.3%     | NR         | 18+       | NR    | NR     | *      |
| WP         | Lim, 2002 (134)              | 1996             | Indigenous Peoples                   | Sabah and Sarawak, Borneo                           | Malaysia         | 3,188           | NR       | NR         | 30+       | 2.9%  | 4.8%   | *      |
| SACA       | Bianchi, 2006 (135)          | 2003             | Toba Aborigines                      | Toba, Mapić, Chelli and Fidelidad                   | Argentina        | 385             | 2.1%     | NR         | All Ages  | 1.40% | 2.40%  | c      |
| SACA       | Meyerfreund, 2009 (136)      | 2003-2004        | Tupinikin                            | Espirito Santo                                      | Brazil           | 616             | 4.2%     | NR         | 20+       | NR    | NR     | c      |
| SACA       | Meyerfreund, 2009 (136)      | 2003-2004        | Guarani                              | Espirito Santo                                      | Brazil           | 616             | 1.5%     | NR         | 20+       | NR    | NR     | c      |
| SACA       | DalFabbro, 2014 (137)        | 2008-2011        | Xavante                              | Mato Grosso                                         | Brazil           | 1,200           | 28.2%    | 25.3-31.1% | 20+       | 18.4% | 40.6%  | *      |
| SACA       | Oliveira, 2014 (138)         | 2009-2011        | Guarani, Terena & Kaiowa             | Jaguapiru Village, Mato Grosso do Sul               | Brazil           | 1,608           | 5.8%     | NR         | 18+       | 2.9%  | 7.8%   | c      |
| SACA       | Franco, 2014 (139)           | 2010-2012        | Xavante                              | Mato Grosso                                         | Brazil           | 903             | 27.6%    | NR         | 20+       | NR    | NR     | c      |
| SACA       | Barbosa, 2019 (140)          | 2015-2016        | Xikrin                               | Pará                                                | Brazil           | 363             | 4.7%     | NR         | 18+       | 3.8%  | 4.9%   | c      |
| SACA       | Gomes, 2021 (141)            | 2018             | Mundurucu                            | Amazonas - Kwata-Laranjal Indigenous Land           | Brazil           | 459             | 12.2%    | NR         | 18+       | NR    | NR     | c      |
| SACA       | Pérez-Bravo, 2001 (142)      | 1997-1998        | Mapuche Indians                      | Southern Chile                                      | Chile            | 319             | 4.1%     | 2.2-6.9%   | 20+       | 3.20% | 4.50%  | c      |
| SACA       | Steinbrook, 2022 (143)       | 2018-2019        | Maya                                 | Tecpan, Chimaltenango and San Antonio Suchitepequez | Guatemala        | 806             | 11.4%    | 8.0-14.8%  | 18+       | NR    | NR     | *      |
| SACA       | Boston, 2019 (144)           | 2010~            | Arawaks - Lokono                     | Pakuri                                              | Guyana           | 318             | 40.3%    | NR         | 18+       | NR    | NR     | c      |
| SACA       | Campbell, 2019 (145)         | 2012~            | Kuna Indians                         | San Blas Islands                                    | Panama           | 211             | 13%      | NR         | 18+       | 14.0% | 12.9%  | c      |

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| IDF Region | Author, pub. year (citation) | Year(s) of study | Indigenous Nation/ Tribe/ population                      | Location/country                                                  | Country          | Sample size (N) | Combined | 95% CI     | Age group | Men   | Women | *c/N R |
|------------|------------------------------|------------------|-----------------------------------------------------------|-------------------------------------------------------------------|------------------|-----------------|----------|------------|-----------|-------|-------|--------|
| SACA       | McDonald, 2013 (146)         | 2010-2011        | Native American                                           | Trans-isthmian zone                                               | Panama           | 391             | 5.4%     | 3.2-7.6%   | 18+       | NR    | NR    | c      |
| AFR        | Kufe, 2016 (147)             | 2013             | Mbororo                                                   | East & Adamawa - Cameroon                                         | West Africa      | 918             | 4.00%    | NR         | 20+       | 2.80% | 2.60% | *      |
| AFR        | Kufe, 2016 (147)             | 2013             | Fulbe                                                     | East & Adamawa - Cameroon                                         | West Africa      | 419             | 3.10%    | NR         | 20+       | 3.60% | 3.80% | *      |
| MENA       | Eltom, 2018 (148)            | 2015             | Danagla, Mahas, & Halfawyeen                              | North Sudan                                                       | Northeast Africa | 978             | 18.6%    | 17.6-19.7% | 18+       | NR    | NR    | *      |
| MENA       | Dajani, 2013 (149)           | 2008-2009        | Circassians                                               | Jordan                                                            | West Asia        | 436             | 8.3%     | 5.9-10.7%  | 18+       | 9.7%  | 7.2%  | *      |
| MENA       | Dajani, 2013 (149)           | 2008-2009        | Chechens                                                  | Jordan                                                            | West Asia        | 355             | 7.5%     | 5.2-9.7%   | 18+       | 11.6% | 5.2%  | *      |
| SEA        | Agrawal, 2004 (150)          | 2002             | Raica                                                     | Bikaner/North-Western Rajasthan                                   | India            | 605             | 0.7%     | NR         | 20+       | NR    | NR    | c      |
| SEA        | Sachdev, 2012 (152)          | 2008~            | Banjara                                                   | Jhunjhunu, Sikar & Churu/Rajasthan                                | India            | 396             | 4.3%     | NR         | 18+       | NR    | NR    | c      |
| SEA        | Sachdev, 2012 (152)          | 2008~            | Natt                                                      | Jhunjhunu, Sikar & Churu/Rajasthan                                | India            | 372             | 5.4%     | NR         | 18+       | NR    | NR    | c      |
| SEA        | Sachdev, 2012 (152)          | 2008~            | Banjara, Natt, Sapara, Bhawariya, Sansui, Bhopa, & Gujjar | Jhunjhunu, Sikar & Churu/Rajasthan                                | India            | 1,160           | 4.4%     | NR         | 18+       | 5.8%  | 3.2%  | c      |
| SEA        | Mungreiphy, 2014 (153)       | 2010~            | Tangkhul Naga                                             | Manipur                                                           | India            | 292             | 2.9%     | NR         | 20+       | 2.5%  | 2.9%  | NR     |
| SEA        | Radhakrishnan, 2015 (154)    | 2010~            | Yercaud Tribal Population                                 | Vazhavandi, Kombuthuki, Koravankadu, & Mamalaburamm, Yercaud      | India            | 525             | NR       | NR         | 30+       | 5.0%  | 5.5%  | NR     |
| SEA        | Shah, 2013 (155)             | 2010~            | Naga                                                      | Manipur                                                           | India            | 295             | 10.2%    | NR         | 20+       | 10.6% | 9.2%  | NR     |
| SEA        | Kapoor, 2014 (156)           | 2011-2012        | Gaddi (Rural/Tribal)                                      | Bharmour of Chamba Himachal Pradesh                               | India            | 4,000           | 3.9%     | NR         | 20+       | 3.3%  | 4.6%  | *      |
| SEA        | Kapoor, 2014 (156)           | 2011-2012        | Gaddi (Rural/Tribal)                                      | Bharmour of Chamba Himachal Pradesh                               | India            | 4,000           | 4.1%     | NR         | 20+       | 3.5%  | 4.8%  | *      |
| SEA        | Kapoor, 2014 (156)           | 2011-2012        | Gaddi (Urban)                                             | Dharamshala of Kangra Himachal Pradesh                            | India            | 4,000           | 7.8%     | NR         | 20+       | 7.0%  | 8.4%  | *      |
| SEA        | Kapoor, 2014 (156)           | 2011-2012        | Gaddi (Urban)                                             | Dharamshala of Kangra Himachal Pradesh                            | India            | 4,000           | 8.5%     | NR         | 20+       | 7.8%  | 9.1%  | *      |
| SEA        | Deo, 2017 (157)              | 2012-2014        | Katkari                                                   | Raigad/Maharashtra                                                | India            | 410             | 7.3%     | NR         | 18+       | 9.8%  | 5.4%  | NR     |
| SEA        | Deo, 2018 (158)              | 2012-2016        | Bhils, Kokana, Katkaris, & Thakar                         | Raigad, Pune, Dhule, & Nandurbar/Maharashtra                      | India            | 1,864           | 5.0%     | NR         | 18+       | 6.5%  | 3.7%  | NR     |
| SEA        | Deo, 2018 (158)              | 2012-2016        | Bhils                                                     | Dhule & Nandurbar/Maharashtra                                     | India            | 748             | NR       | NR         | 18+       | 3.5%  | 3.5%  | NR     |
| SEA        | Deo, 2018 (158)              | 2012-2016        | Katkari                                                   | Raigad/Maharashtra                                                | India            | 352             | NR       | NR         | 18+       | 9.1%  | 4.3%  | NR     |
| SEA        | Deo, 2018 (158)              | 2012-2016        | Kokana                                                    | Dhule & Nandurbar/Maharashtra                                     | India            | 204             | NR       | NR         | 18+       | 7.8%  | 3.8%  | NR     |
| SEA        | Deo, 2018 (158)              | 2012-2016        | Thakar                                                    | Pune/Maharashtra                                                  | India            | 560             | NR       | NR         | 18+       | 3.3%  | 3.6%  | NR     |
| SEA        | Negi, 2016 (159)             | 2014             | Kinnaur Tribal Population                                 | Kinnaur/Himachal Pradesh                                          | India            | 3,580           | 6.90%    | 6.1-7.8%   | 20+       | 6.00% | 7.60% | NR     |
| SEA        | Purohit, 2017 (160)          | 2014-2015        | Raika                                                     | Pali, Sirohi, and Jodhpur/Rajasthan                               | India            | 315             | 1.3%     | NR         | 18+       | NR    | NR    | *      |
| SEA        | Ganie, 2020 (161)            | 2014-2016        | Gujjar & Bakerwal                                         | Anantnag, Pulwama, Ganderbal, Kupwara, & Srinagar/Jammu & Kashmir | India            | 6,808           | 1.3%     | NR         | All Ages  | 1.6%  | 1.1%  | NR     |
| SEA        | Ningombam, 2019 (162)        | 2014-2016        | Liangmai Naga                                             | Manipur                                                           | India            | 258             | 4.3%     | NR         | 18+       | NR    | NR    | NR     |
| SEA        | Ningombam, 2019 (162)        | 2014-2016        | Mizo                                                      | Manipur                                                           | India            | 263             | 33.1%    | NR         | 18+       | NR    | NR    | NR     |
| SEA        | Madhu, 2019 (163)            | 2015~            | Kombdiki, Gajnuru, Minya, Konankere, & Martalli           | Kollegal taluk, Chamranjanagar, and Karnataka                     | India            | 415             | 2.9%     | NR         | 30+       | NR    | NR    | c      |
| SEA        | Sathiyarayanan, 2019 (164)   | 2018             | Malayalee                                                 | Jawadu hills, Vellore district/Tamil Nadu                         | India            | 952             | 3.80%    | NR         | 18+       | 3.10% | 4.20% | c      |
| SEA        | Devi, 2020 (165)             | 2019             | Meitei                                                    | Imphal East, Imphal West, Thoubal,                                | India            | 1,026           | 12.96%   | NR         | 25+       | NR    | NR    | NR     |

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| IDF Region                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Author, pub. year (citation) | Year(s) of study | Indigenous Nation/ Tribe/ population | Location/country              | Country | Sample size (N) | Combined | 95% CI | Age group | Men | Women | *c/N R |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------|--------------------------------------|-------------------------------|---------|-----------------|----------|--------|-----------|-----|-------|--------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                  |                                      | Kakching, & Bishnupur/Manipur |         |                 |          |        |           |     |       |        |
| <p>Key: IDF = International Diabetes Federation, CI = Confidence Interval, ~ denotes approximate date, NR = Not Reported, N/A = Not Applicable, * denotes age &amp;/or sex adjusted prevalence percentage, c = crude prevalence, AI/AN = American Indian and Alaska Native, NHPI = Native Hawaiian and Pacific Islander, NHOPIs = Native Hawaiian/Other Pacific Islanders, WHO = World Health Organization, ADA = American Diabetes Association, NDDG = National Diabetes Data Group, All Ages includes youth data ranging from 0-17+ years of age. IDF Regions: North America and Caribbean (NAC), Europe (EUR), Western Pacific (WP), South and Central America (SACA), Middle East and North Africa (MENA), and South-East Asia (SEA). Note: The 'Sample Size' column often includes the overall sample size for the study and may not be reflective of each individual sample size for studies reporting prevalence for multiple populations. All citations (#) can be found in the ESM Full Reference List.</p> |                              |                  |                                      |                               |         |                 |          |        |           |     |       |        |

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ESM Table 2. Overall prevalence of type 2 diabetes among global Indigenous populations above and below 10% prevalence by decade.

|                  | Type 2 diabetes prevalence (%) |         | Number of populations reported ( <i>n</i> ) | Proportion of total populations reported in each decade (%) |
|------------------|--------------------------------|---------|---------------------------------------------|-------------------------------------------------------------|
|                  | Minimum                        | Maximum |                                             |                                                             |
| <b>1980-1989</b> | 0.0%                           | 24.0%   | 55                                          |                                                             |
| <b>≥10%</b>      | 10.2%                          | 24.0%   | 21                                          | 38%                                                         |
| <b>&lt;10%</b>   | 0.0%                           | 9.5%    | 34                                          | 62%                                                         |
|                  |                                |         |                                             |                                                             |
| <b>1990-1999</b> | 0.3%                           | 39.0%   | 46                                          |                                                             |
| <b>≥10%</b>      | 10.9%                          | 39.0%   | 18                                          | 39%                                                         |
| <b>&lt;10%</b>   | 0.3%                           | 10.0%   | 28                                          | 61%                                                         |
|                  |                                |         |                                             |                                                             |
| <b>2000-2009</b> | 0.4%                           | 33.9%   | 76                                          |                                                             |
| <b>≥10%</b>      | 10.2%                          | 33.9%   | 32                                          | 43%                                                         |
| <b>&lt;10%</b>   | 0.7%                           | 9.8%    | 44                                          | 57%                                                         |
|                  |                                |         |                                             |                                                             |
| <b>2010-2019</b> | 0.7%                           | 40.3%   | 69                                          |                                                             |
| <b>≥10%</b>      | 10.2%                          | 40.3%   | 43                                          | 62%                                                         |
| <b>&lt;10%</b>   | 0.7%                           | 9.9%    | 26                                          | 38%                                                         |

*Note.* The 10% type 2 diabetes prevalence cut-point used is based on the projected 2050 diabetes prevalence.<sup>21</sup>

## Prevalence of type 2 diabetes among global Indigenous adult populations: a systematic review

ESM Table 3. Modified Newcastle-Ottawa Quality Assessment results

Study characteristics assessed included: ‘*Sample selection*’, the representativeness of Indigenous study populations and response rates; ‘*Outcome*’, the methods used to assess the outcome of interest; and ‘*Comparability*’, whether adjusted, standardized, or crude prevalence was reported. The maximum quality score was 10 points, with final scores defined as *low* (0-3 points), *medium* (4-7 points), or *high-quality* (8-10 points).

Many (69%) were truly representative of Indigenous populations, 27% somewhat representative, and 4% did not report a clear description or sufficient information to determine representativeness.

| IDF region | Author, year of publication [citation] | Country | Representative of Indigenous population (0-3) | Response rate (0-2) | Outcome assessment (0-4) | Comparability (adjusted/standardized) (0-1) | Total score (0-10) |
|------------|----------------------------------------|---------|-----------------------------------------------|---------------------|--------------------------|---------------------------------------------|--------------------|
| NAC        | Acton, 1993 [2]                        | USA     | 2                                             | 1                   | 3                        | 1                                           | 7                  |
| NAC        | Acton, 2002 [166]                      | USA     | 2                                             | 1                   | 2                        | 1                                           | 6                  |
| NAC        | Aluli, 2009 [9]                        | USA     | 3                                             | 0                   | 4                        | 1                                           | 8                  |
| NAC        | Aminov, 2016 [16]                      | USA     | 3                                             | 0                   | 4                        | 1                                           | 8                  |
| NAC        | Barnes, 2010 [32]                      | USA     | 2                                             | 1                   | 1                        | 1                                           | 5                  |
| NAC        | Blue Bird Jernigan, 2010 [34]          | USA     | 2                                             | 0                   | 1                        | 1                                           | 4                  |
| NAC        | Bullock, 2020 [44]                     | USA     | 3                                             | 1                   | 3                        | 1                                           | 8                  |
| NAC        | Burrows, 2000 [167]                    | USA     | 2                                             | 1                   | 2                        | 1                                           | 6                  |
| NAC        | Cabassa, 2011 [31]                     | USA     | 2                                             | 2                   | 1                        | 1                                           | 6                  |
| NAC        | Campos-Outcalt, 1995 [168]             | USA     | 3                                             | 1                   | 4                        | 0                                           | 8                  |
| NAC        | Carter, 2006 [21]                      | USA     | 3                                             | 1                   | 4                        | 1                                           | 9                  |
| NAC        | CDC-MMWR, 1998 [17]                    | USA     | 2                                             | 1                   | 2                        | 1                                           | 6                  |
| NAC        | CDC-MMWR, 2003 [25]                    | USA     | 2                                             | 1                   | 2                        | 1                                           | 6                  |
| NAC        | Choi, 2013 [37]                        | USA     | 2                                             | 0                   | 1                        | 1                                           | 4                  |
| NAC        | Chiem, 2006 [22]                       | USA     | 2                                             | 1                   | 1                        | 0                                           | 4                  |
| NAC        | Daw, 2017 [18]                         | USA     | 2                                             | 1                   | 1                        | 0                                           | 4                  |
| NAC        | de Courten, 1996 [12]                  | USA     | 3                                             | 0                   | 4                        | 1                                           | 8                  |
| NAC        | Denny, 2005 [169]                      | USA     | 2                                             | 0                   | 1                        | 1                                           | 4                  |
| NAC        | Ebbesson, 1999 [13]                    | USA     | 3                                             | 0                   | 4                        | 0                                           | 7                  |
| NAC        | Freeman, 1989 [4]                      | USA     | 2                                             | 1                   | 2                        | 1                                           | 6                  |
| NAC        | Grandinetti, 1998 [11]                 | USA     | 3                                             | 0                   | 3                        | 1                                           | 7                  |
| NAC        | Harjo, 2011 [33]                       | USA     | 2                                             | 1                   | 1                        | 1                                           | 5                  |
| NAC        | Hodge, 2011 [26]                       | USA     | 3                                             | 2                   | 1                        | 0                                           | 6                  |
| NAC        | Holm, 2010 [30]                        | USA     | 3                                             | 2                   | 1                        | 1                                           | 7                  |
| NAC        | Jiang, 2008 [170]                      | USA     | 3                                             | 1                   | 1                        | 1                                           | 6                  |

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| IDF region | Author, year of publication [citation] | Country | Representative of Indigenous population (0-3) | Response rate (0-2) | Outcome assessment (0-4) | Comparability (adjusted/standardized) (0-1) | Total score (0-10) |
|------------|----------------------------------------|---------|-----------------------------------------------|---------------------|--------------------------|---------------------------------------------|--------------------|
| NAC        | Jolly, 2014 [14]                       | USA     | 2                                             | 0                   | 4                        | 1                                           | 7                  |
| NAC        | Karter, 2013 [39]                      | USA     | 2                                             | 1                   | 2                        | 1                                           | 6                  |
| NAC        | Kirtland, 2015 [40]                    | USA     | 2                                             | 0                   | 1                        | 1                                           | 4                  |
| NAC        | Lee, 1995 [171]                        | USA     | 3                                             | 1                   | 4                        | 1                                           | 9                  |
| NAC        | Lee, 2004 [172]                        | USA     | 2                                             | 1                   | 4                        | 1                                           | 8                  |
| NAC        | Levin, 2001 [19]                       | USA     | 3                                             | 2                   | 1                        | 1                                           | 7                  |
| NAC        | Liao, 2004 [24]                        | USA     | 3                                             | 1                   | 1                        | 1                                           | 6                  |
| NAC        | Liao, 2011 [38]                        | USA     | 3                                             | 0                   | 1                        | 1                                           | 5                  |
| NAC        | Love, 2018 [42]                        | USA     | 2                                             | 2                   | 1                        | 1                                           | 6                  |
| NAC        | Maskarinec, 2009 [173]                 | USA     | 2                                             | 0                   | 1                        | 1                                           | 4                  |
| NAC        | Gilliland, 1999 [15]                   | USA     | 3                                             | 0                   | 1                        | 1                                           | 5                  |
| NAC        | McNeely, 2004 [23]                     | USA     | 2                                             | 0                   | 1                        | 1                                           | 4                  |
| NAC        | Middaugh, 1991 [1]                     | USA     | 2                                             | 1                   | 2                        | 1                                           | 6                  |
| NAC        | Muneta, 1993 [7]                       | USA     | 2                                             | 0                   | 1                        | 1                                           | 4                  |
| NAC        | Murphy, 1992 [174]                     | USA     | 3                                             | 1                   | 4                        | 1                                           | 8                  |
| NAC        | Narayanan, 2010 [36]                   | USA     | 3                                             | 1                   | 2                        | 1                                           | 7                  |
| NAC        | Nikolaus, 2022 [175]                   | USA     | 2                                             | 0                   | 4                        | 1                                           | 7                  |
| NAC        | Oser, 2005 [28]                        | USA     | 3                                             | 1                   | 1                        | 1                                           | 6                  |
| NAC        | Reid, 2010 [27]                        | USA     | 2                                             | 1                   | 3                        | 1                                           | 7                  |
| NAC        | Roberts, 2009 [176]                    | USA     | 2                                             | 0                   | 1                        | 1                                           | 4                  |
| NAC        | Scavini, 2003 [20]                     | USA     | 3                                             | 0                   | 3                        | 1                                           | 7                  |
| NAC        | Schraer, 1997 [10]                     | USA     | 2                                             | 1                   | 2                        | 1                                           | 6                  |
| NAC        | Stahn, 1993 [6]                        | USA     | 1                                             | 1                   | 2                        | 1                                           | 5                  |
| NAC        | Subica, 2017 [35]                      | USA     | 2                                             | 0                   | 1                        | 1                                           | 4                  |
| NAC        | Sugarman, 1989 [3]                     | USA     | 3                                             | 1                   | 1                        | 1                                           | 6                  |
| NAC        | Towne, 2017 [43]                       | USA     | 2                                             | 0                   | 1                        | 1                                           | 4                  |
| NAC        | Uchima, 2019 [41]                      | USA     | 2                                             | 0                   | 1                        | 1                                           | 4                  |
| NAC        | Valway, 1993 [5]                       | USA     | 3                                             | 1                   | 2                        | 1                                           | 7                  |
| NAC        | Will, 1997 [8]                         | USA     | 3                                             | 1                   | 4                        | 1                                           | 9                  |
| NAC        | Wu, 2005 [29]                          | USA     | 2                                             | 1                   | 1                        | 0                                           | 4                  |
| NAC        | Avery, 2022 [71]                       | Canada  | 2                                             | 0                   | 1                        | 0                                           | 3                  |
| NAC        | Bruce, 2014 [58]                       | Canada  | 2                                             | 1                   | 1                        | 0                                           | 4                  |
| NAC        | Bruce, 2010 [55]                       | Canada  | 3                                             | 0                   | 4                        | 0                                           | 7                  |
| NAC        | Bruce, 2008 [54]                       | Canada  | 3                                             | 0                   | 4                        | 0                                           | 7                  |
| NAC        | Bruce, 2003 [50]                       | Canada  | 3                                             | 1                   | 3                        | 1                                           | 8                  |
| NAC        | Chan, 2021 [72]                        | Canada  | 3                                             | 1                   | 3                        | 0                                           | 7                  |

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| IDF region | Author, year of publication [citation] | Country   | Representative of Indigenous population (0-3) | Response rate (0-2) | Outcome assessment (0-4) | Comparability (adjusted/standardized) (0-1) | Total score (0-10) |
|------------|----------------------------------------|-----------|-----------------------------------------------|---------------------|--------------------------|---------------------------------------------|--------------------|
| NAC        | Delisle, 1993 [48]                     | Canada    | 3                                             | 0                   | 4                        | 1                                           | 8                  |
| NAC        | Dyck, 2010 [56]                        | Canada    | 3                                             | 1                   | 2                        | 1                                           | 7                  |
| NAC        | Dyck, 2015 [68]                        | Canada    | 3                                             | 0                   | 1                        | 0                                           | 4                  |
| NAC        | Egeland, 2011 [62]                     | Canada    | 3                                             | 1                   | 4                        | 0                                           | 8                  |
| NAC        | Evers, 1987 [46]                       | Canada    | 3                                             | 1                   | 1                        | 1                                           | 6                  |
| NAC        | Green, 2003 [53]                       | Canada    | 3                                             | 1                   | 3                        | 1                                           | 8                  |
| NAC        | Harris, 1997 [51]                      | Canada    | 3                                             | 1                   | 4                        | 1                                           | 9                  |
| NAC        | Horn, 2007 [47]                        | Canada    | 3                                             | 0                   | 1                        | 1                                           | 5                  |
| NAC        | Hu, 2019 [63]                          | Canada    | 3                                             | 2                   | 4                        | 1                                           | 10                 |
| NAC        | Batal, 2021 [64]                       | Canada    | 3                                             | 1                   | 1                        | 1                                           | 6                  |
| NAC        | Johnson, 2002 [52]                     | Canada    | 3                                             | 0                   | 1                        | 1                                           | 5                  |
| NAC        | Johnson, 2009 [59]                     | Canada    | 2                                             | 1                   | 3                        | 1                                           | 7                  |
| NAC        | Marushka, 2017 [67]                    | Canada    | 3                                             | 1                   | 1                        | 1                                           | 6                  |
| NAC        | Matsumoto, 2020 [70]                   | Canada    | 2                                             | 1                   | 4                        | 1                                           | 8                  |
| NAC        | Montour, 1985 [177]                    | Canada    | 3                                             | 1                   | 1                        | 0                                           | 5                  |
| NAC        | Oster, 2014 [57]                       | Canada    | 2                                             | 1                   | 3                        | 0                                           | 6                  |
| NAC        | Pelletier, 2012 [60]                   | Canada    | 2                                             | 0                   | 1                        | 1                                           | 4                  |
| NAC        | Pioro, 1996 [49]                       | Canada    | 3                                             | 1                   | 1                        | 1                                           | 6                  |
| NAC        | Ralph-Campbell, 2009 [61]              | Canada    | 3                                             | 0                   | 1                        | 1                                           | 5                  |
| NAC        | Riediger, 2014 [66]                    | Canada    | 3                                             | 0                   | 4                        | 0                                           | 7                  |
| NAC        | Shah, 2011 [65]                        | Canada    | 3                                             | 1                   | 3                        | 1                                           | 8                  |
| NAC        | Walker, 2020 [69]                      | Canada    | 3                                             | 1                   | 3                        | 1                                           | 8                  |
| NAC        | Young, 1985 [45]                       | Canada    | 2                                             | 0                   | 0                        | 0                                           | 2                  |
| NAC        | Young, 1990 [178]                      | Canada    | 3                                             | 1                   | 4                        | 0                                           | 8                  |
| NAC        | Escobedo, 2010 [179]                   | Mexico    | 3                                             | 1                   | 4                        | 1                                           | 9                  |
| NAC        | Jimenez-Corona, 2019 [74]              | Mexico    | 2                                             | 1                   | 4                        | 1                                           | 8                  |
| NAC        | Loria, 2020 [73]                       | Mexico    | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| NAC        | Mendoza-Catalan, 2022 [76]             | Mexico    | 3                                             | 0                   | 1                        | 0                                           | 4                  |
| NAC        | Pacheco, 2018 [75]                     | Mexico    | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| EUR        | McGorrian, 2012 [77]                   | Ireland   | 3                                             | 2                   | 1                        | 1                                           | 7                  |
| EUR        | Naseribafrouei, 2016 [180]             | Norway    | 3                                             | 1                   | 1                        | 1                                           | 7                  |
| EUR        | Naseribafrouei, 2018 [181]             | Norway    | 3                                             | 0                   | 4                        | 1                                           | 8                  |
| EUR        | Moustgaard, 2005 [182]                 | Denmark   | 3                                             | 0                   | 4                        | 1                                           | 8                  |
| EUR        | Jorgensen, 2002 [183]                  | Greenland | 3                                             | 1                   | 4                        | 1                                           | 9                  |
| EUR        | Viskum, 2016 [79]                      | Greenland | 3                                             | 2                   | 3                        | 1                                           | 9                  |

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| IDF region | Author, year of publication [citation] | Country              | Representative of Indigenous population (0-3) | Response rate (0-2) | Outcome assessment (0-4) | Comparability (adjusted/standardized) (0-1) | Total score (0-10) |
|------------|----------------------------------------|----------------------|-----------------------------------------------|---------------------|--------------------------|---------------------------------------------|--------------------|
| EUR        | Jorgensen, 2012 [78]                   | Greenland            | 3                                             | 1                   | 4                        | 1                                           | 9                  |
| EUR        | Dogadin, 2001 [80]                     | Siberia              | 3                                             | 2                   | 4                        | 1                                           | 10                 |
| WP         | Arnold, 2016 [99]                      | Australia            | 3                                             | 1                   | 4                        | 0                                           | 8                  |
| WP         | Brimblecombe, 2006 [96]                | Australia            | 3                                             | 0                   | 4                        | 1                                           | 6                  |
| WP         | Brown, 2014 [100]                      | Australia            | 3                                             | 0                   | 2                        | 0                                           | 5                  |
| WP         | Cameron, 1986 [81]                     | Australia            | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| WP         | Gault, 1996 [83]                       | Australia            | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| WP         | Guest, 1992 [92]                       | Australia            | 2                                             | 2                   | 4                        | 0                                           | 8                  |
| WP         | Gubhaju, 2013 [184]                    | Australia            | 2                                             | 0                   | 1                        | 0                                           | 3                  |
| WP         | Hare, 2022 [102]                       | Australia            | 2                                             | 1                   | 2                        | 1                                           | 6                  |
| WP         | Hoy, 1997 [84]                         | Australia            | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| WP         | Hoy, 2007 [95]                         | Australia            | 1                                             | 1                   | 4                        | 0                                           | 6                  |
| WP         | Jeffries-Stokes, 2020 [101]            | Australia            | 3                                             | 1                   | 4                        | 0                                           | 9                  |
| WP         | Keel, 2016 [185]                       | Australia            | 3                                             | 2                   | 1                        | 1                                           | 7                  |
| WP         | Leonard, 2002 [88]                     | Australia            | 3                                             | 0                   | 4                        | 1                                           | 8                  |
| WP         | McCulloch, 2003 [94]                   | Australia            | 3                                             | 0                   | 1                        | 0                                           | 4                  |
| WP         | McDermott, 2000 [90]                   | Australia            | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| WP         | McDonald, 2003 [87]                    | Australia            | 2                                             | 2                   | 1                        | 0                                           | 5                  |
| WP         | O'Dea, 1993 [186]                      | Australia            | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| WP         | O'Dea, 2008 [98]                       | Australia            | 1                                             | 0                   | 4                        | 0                                           | 5                  |
| WP         | Rowley, 2000 [91]                      | Australia            | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| WP         | Thompson, 2003 [93]                    | Australia            | 2                                             | 0                   | 4                        | 0                                           | 6                  |
| WP         | Wang, 2003 [86]                        | Australia            | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| WP         | Wang, 2004 [85]                        | Australia            | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| WP         | Wang, 2007 [89]                        | Australia            | 2                                             | 1                   | 4                        | 0                                           | 7                  |
| WP         | Williams, 1987 [82]                    | Australia            | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| WP         | Xie, 2011 [187]                        | Australia            | 3                                             | 1                   | 1                        | 0                                           | 5                  |
| WP         | Zhao, 2008 [97]                        | Australia            | 2                                             | 1                   | 2                        | 1                                           | 6                  |
| WP         | Cameron, 2012 [188]                    | Aotearoa New Zealand | 3                                             | 0                   | 4                        | 1                                           | 8                  |
| WP         | Chan, 2014 [108]                       | Aotearoa New Zealand | 3                                             | 1                   | 2                        | 1                                           | 7                  |
| WP         | Coppell, 2013 [111]                    | Aotearoa New Zealand | 3                                             | 1                   | 1                        | 1                                           | 6                  |
| WP         | Halim, 2019 [106]                      | Aotearoa New Zealand | 3                                             | 0                   | 2                        | 0                                           | 5                  |
| WP         | Joshy, 2007 [110]                      | Aotearoa New Zealand | 2                                             | 1                   | 3                        | 1                                           | 7                  |
| WP         | Simmons, 1994 [103]                    | Aotearoa New Zealand | 2                                             | 2                   | 1                        | 1                                           | 6                  |

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| IDF region | Author, year of publication [citation] | Country                | Representative of Indigenous population (0-3) | Response rate (0-2) | Outcome assessment (0-4) | Comparability (adjusted/standardized) (0-1) | Total score (0-10) |
|------------|----------------------------------------|------------------------|-----------------------------------------------|---------------------|--------------------------|---------------------------------------------|--------------------|
| WP         | Simmons, 1999 [104]                    | Aotearoa New Zealand   | 2                                             | 2                   | 1                        | 1                                           | 6                  |
| WP         | Simmons, 2001 [189]                    | Aotearoa New Zealand   | 3                                             | 0                   | 4                        | 1                                           | 7                  |
| WP         | Smith, 2010 [109]                      | Aotearoa New Zealand   | 3                                             | 0                   | 2                        | 1                                           | 6                  |
| WP         | Sundborn, 2007 [105]                   | Aotearoa New Zealand   | 3                                             | 0                   | 4                        | 1                                           | 8                  |
| WP         | Sundborn, 2008 [190]                   | Aotearoa New Zealand   | 3                                             | 0                   | 4                        | 1                                           | 8                  |
| WP         | Tipene-Leach, 2004 [107]               | Aotearoa New Zealand   | 3                                             | 0                   | 4                        | 1                                           | 8                  |
| WP         | Winnard, 2012 [112]                    | Aotearoa New Zealand   | 1                                             | 0                   | 1                        | 1                                           | 3                  |
| WP         | Taylor, 1992 [116]                     | Fiji/Kirabati/ Vanuatu | 3                                             | 2                   | 4                        | 1                                           | 10                 |
| WP         | King, 1986 [113]                       | Cook Islands & Niue    | 3                                             | 2                   | 4                        | 1                                           | 10                 |
| WP         | Brian, 2010 [191]                      | Fiji                   | 3                                             | 1                   | 4                        | 1                                           | 9                  |
| WP         | Gyaneshwar, 2016 [192]                 | Fiji                   | 2                                             | 1                   | 4                        | 1                                           | 8                  |
| WP         | Hoskins, 1987 [119]                    | Fiji                   | 0                                             | 0                   | 3                        | 1                                           | 4                  |
| WP         | King, 1984 [117]                       | Fiji/Kirabati          | 3                                             | 2                   | 4                        | 1                                           | 10                 |
| WP         | Lako, 2001 [120]                       | Fiji                   | 3                                             | 0                   | 4                        | 0                                           | 7                  |
| WP         | Russell-Jones, 1990 [193]              | Fiji                   | 0                                             | 0                   | 4                        | 0                                           | 4                  |
| WP         | Witter, 2015 [194]                     | Fiji                   | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| WP         | Zimmet, 1983 [118]                     | Fiji                   | 3                                             | 2                   | 4                        | 1                                           | 10                 |
| WP         | Durand, 1997 [121]                     | Mariana Islands        | 3                                             | 0                   | 2                        | 1                                           | 6                  |
| WP         | Murdock, 2013 [115]                    | Kosrae Island (FSM)    | 3                                             | 2                   | 4                        | 1                                           | 10                 |
| WP         | Shmulewitz, 2001 [114]                 | FSM - Micronesia       | 3                                             | 2                   | 4                        | 1                                           | 10                 |
| WP         | Dowse, 1991 [122]                      | Nauru                  | 3                                             | 2                   | 4                        | 1                                           | 10                 |
| WP         | Papoz, 1996 [195]                      | New Caledonia          | 3                                             | 1                   | 3                        | 1                                           | 8                  |
| WP         | Osako, 2017 [196]                      | Palau                  | 3                                             | 2                   | 4                        | 1                                           | 10                 |
| WP         | Dowse, 1994 [125]                      | Papua New Guinea       | 3                                             | 1                   | 4                        | 1                                           | 9                  |
| WP         | King, 1989 [123]                       | Papua New Guinea       | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| WP         | King, 1991 [124]                       | Papua New Guinea       | 3                                             | 2                   | 4                        | 0                                           | 7                  |
| WP         | Beizer, 1990 [129]                     | Soloman Islands        | 2                                             | 0                   | 4                        | 0                                           | 6                  |
| WP         | Eason, 1987 [128]                      | Solomon Islands        | 3                                             | 2                   | 3                        | 1                                           | 9                  |
| WP         | Furusawa, 2021 [130]                   | Solomon Islands        | 0                                             | 0                   | 4                        | 0                                           | 4                  |
| WP         | Colagiuri, 2002 [131]                  | Tonga                  | 3                                             | 2                   | 4                        | 1                                           | 10                 |

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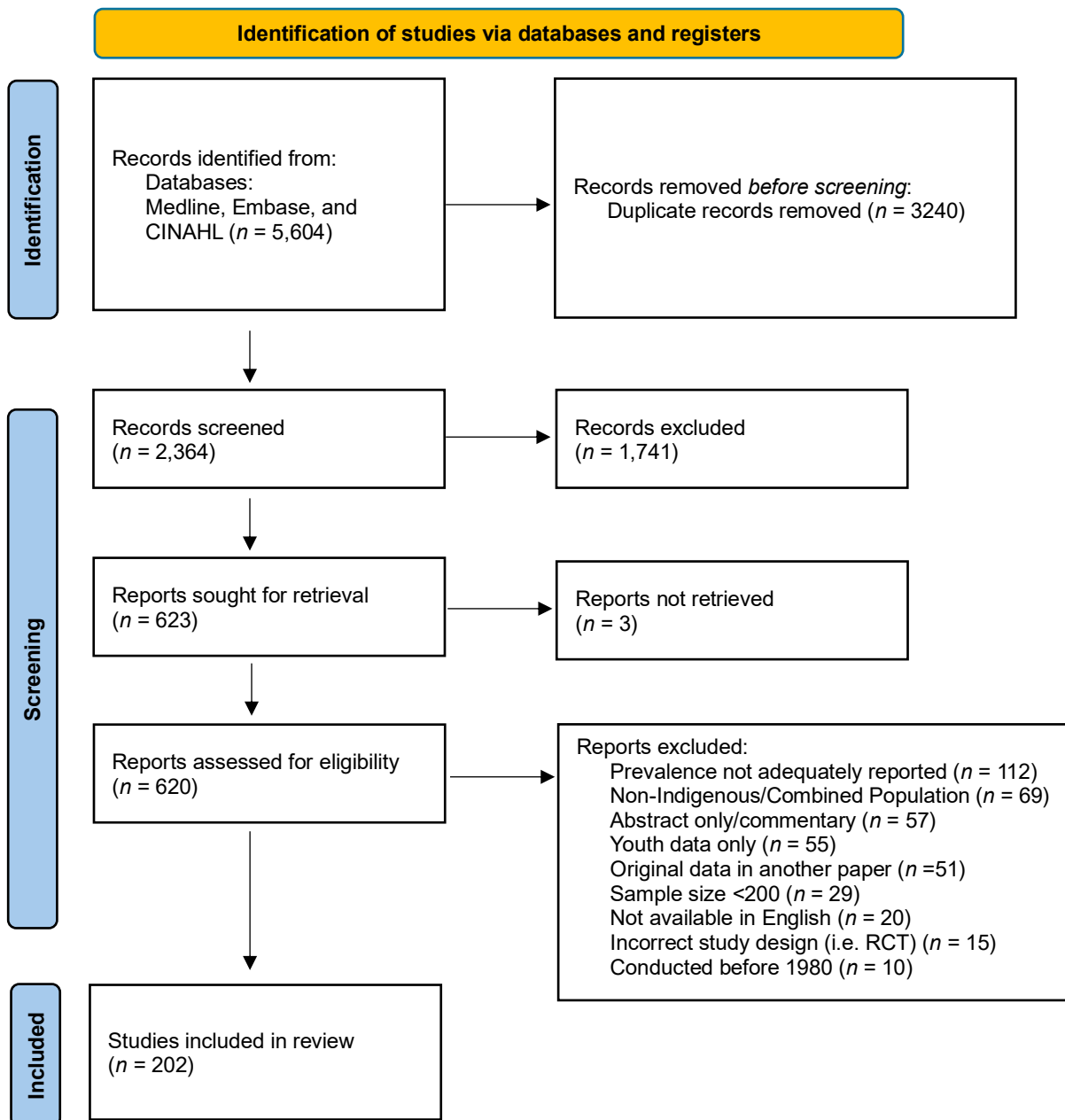
| IDF region | Author, year of publication [citation] | Country      | Representative of Indigenous population (0-3) | Response rate (0-2) | Outcome assessment (0-4) | Comparability (adjusted/standardized) (0-1) | Total score (0-10) |
|------------|----------------------------------------|--------------|-----------------------------------------------|---------------------|--------------------------|---------------------------------------------|--------------------|
| WP         | Lin, 2016 [197]                        | Tonga        | 3                                             | 2                   | 4                        | 1                                           | 10                 |
| WP         | Collins, 1994 [126]                    | Samoa        | 3                                             | 1                   | 4                        | 1                                           | 9                  |
| WP         | Tafuna'i 2022 [127]                    | Samoa        | 0                                             | 0                   | 4                        | 1                                           | 5                  |
| WP         | Ali, 1993 [133]                        | Malaysia     | 3                                             | 2                   | 4                        | 1                                           | 10                 |
| WP         | Lim, 2002 [134]                        | Malaysia     | 3                                             | 2                   | 4                        | 1                                           | 10                 |
| WP         | Teh, 2014 [198]                        | Malaysia     | 3                                             | 0                   | 1                        | 0                                           | 4                  |
| WP         | Chen, 1997 [199]                       | Taiwan       | 3                                             | 1                   | 1                        | 1                                           | 6                  |
| WP         | Chen, 2001 [200]                       | Taiwan       | 3                                             | 0                   | 1                        | 1                                           | 5                  |
| WP         | Li, 2020 [132]                         | China        | 3                                             | 2                   | 1                        | 1                                           | 7                  |
| SACA       | Boston, 2019 [144]                     | Guyana       | 3                                             | 0                   | 1                        | 0                                           | 4                  |
| SACA       | Chen, 2017 [201]                       | Guatemala    | 3                                             | 2                   | 1                        | 0                                           | 6                  |
| SACA       | Steinbrook, 2022 [143]                 | Guatemala    | 2                                             | 0                   | 4                        | 1                                           | 5                  |
| SACA       | Barbosa, 2019 [140]                    | Brazil       | 3                                             | 1                   | 4                        | 0                                           | 8                  |
| SACA       | Gomes, 2021 [141]                      | Brazil       | 2                                             | 1                   | 3                        | 0                                           | 6                  |
| SACA       | Meyerfreund, 2009 [136]                | Brazil       | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| SACA       | Oliveira, 2014 [138]                   | Brazil       | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| SACA       | Franco, 2014 [139]                     | Brazil       | 3                                             | 0                   | 4                        | 0                                           | 7                  |
| SACA       | DalFabbro, 2014 [137]                  | Brazil       | 3                                             | 0                   | 3                        | 1                                           | 7                  |
| SACA       | Bianchi, 2006 [135]                    | Argentina    | 3                                             | 0                   | 4                        | 0                                           | 7                  |
| SACA       | Pérez-Bravo, 2001 [142]                | Chile        | 3                                             | 2                   | 4                        | 0                                           | 9                  |
| SACA       | Campbell, 2019 [145]                   | Panama       | 3                                             | 0                   | 4                        | 0                                           | 7                  |
| SACA       | McDonald, 2013 [146]                   | Panama       | 2                                             | 2                   | 1                        | 0                                           | 5                  |
| AFR        | Mollentze, 1995 [202]                  | South Africa | 3                                             | 1                   | 4                        | 1                                           | 9                  |
| AFR        | Kufe, 2016 [147]                       | Cameroon     | 3                                             | 1                   | 3                        | 1                                           | 8                  |
| MENA       | Eltom, 2018 [148]                      | Sudan        | 3                                             | 2                   | 1                        | 0                                           | 6                  |
| MENA       | Dajani, 2013 [149]                     | Jordan       | 3                                             | 0                   | 4                        | 1                                           | 8                  |
| SEA        | Agrawal, 2004 [150]                    | India        | 3                                             | 1                   | 4                        | 0                                           | 8                  |
| SEA        | Chhungi, 2019 [151]                    | India        | 3                                             | 0                   | 4                        | 0                                           | 7                  |
| SEA        | Deo, 2017 [157]                        | India        | 3                                             | 0                   | 3                        | 0                                           | 6                  |
| SEA        | Deo, 2018 [158]                        | India        | 3                                             | 1                   | 3                        | 0                                           | 7                  |
| SEA        | Devi, 2020 [165]                       | India        | 3                                             | 0                   | 4                        | 0                                           | 7                  |
| SEA        | Ganie, 2020 [161]                      | India        | 3                                             | 0                   | 4                        | 0                                           | 7                  |
| SEA        | Kapoor, 2014 [156]                     | India        | 3                                             | 0                   | 4                        | 1                                           | 7                  |
| SEA        | Madhu, 2019 [163]                      | India        | 3                                             | 0                   | 3                        | 0                                           | 6                  |

# Prevalence of type 2 diabetes among global Indigenous adult populations: a systematic review

| IDF region                                                                                                                                                                                 | Author, year of publication [citation] | Country | Representative of Indigenous population (0-3) | Response rate (0-2) | Outcome assessment (0-4) | Comparability (adjusted/standardized) (0-1) | Total score (0-10) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------|-----------------------------------------------|---------------------|--------------------------|---------------------------------------------|--------------------|
| SEA                                                                                                                                                                                        | Mungreiphy, 2014 [153]                 | India   | 3                                             | 0                   | 1                        | 0                                           | 4                  |
| SEA                                                                                                                                                                                        | Negi, 2016 [159]                       | India   | 3                                             | 0                   | 3                        | 0                                           | 6                  |
| SEA                                                                                                                                                                                        | Ningombam, 2019 [162]                  | India   | 3                                             | 0                   | 4                        | 0                                           | 7                  |
| SEA                                                                                                                                                                                        | Purohit, 2017 [160]                    | India   | 3                                             | 0                   | 3                        | 1                                           | 7                  |
| SEA                                                                                                                                                                                        | Radhakrishnan, 2015 [154]              | India   | 3                                             | 0                   | 1                        | 0                                           | 4                  |
| SEA                                                                                                                                                                                        | Sachdev, 2012 [152]                    | India   | 3                                             | 0                   | 4                        | 0                                           | 7                  |
| SEA                                                                                                                                                                                        | Sathiyanarayanan, 2019 [164]           | India   | 3                                             | 2                   | 1                        | 0                                           | 6                  |
| SEA                                                                                                                                                                                        | Shah, 2013 [155]                       | India   | 3                                             | 0                   | 3                        | 0                                           | 6                  |
| Key: IDF Regions: North America and Caribbean (NAC), Europe (EUR), Western Pacific (WP), South and Central America (SACA), Middle East and North Africa (MENA), and South-East Asia (SEA). |                                        |         |                                               |                     |                          |                                             |                    |

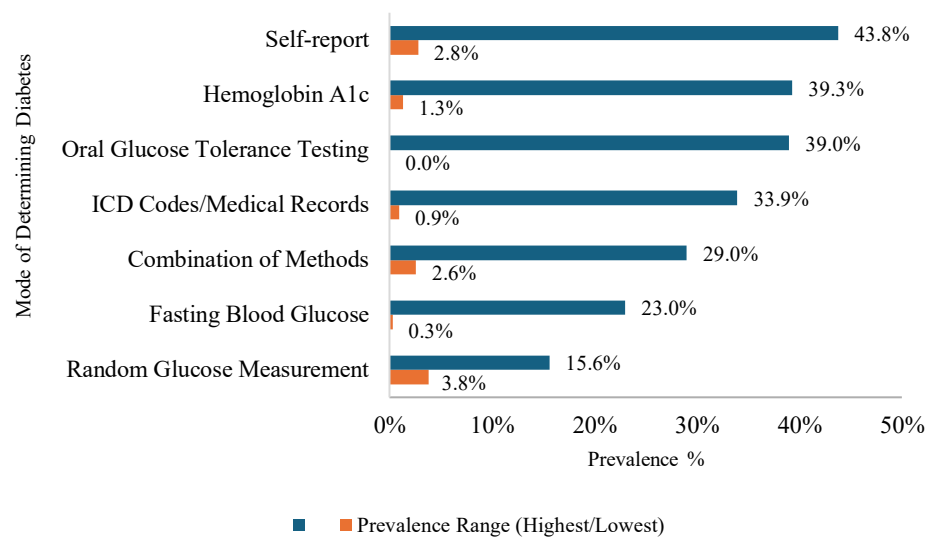
## ESM Figures

ESM Figure 1. PRISMA Study selection flow diagram



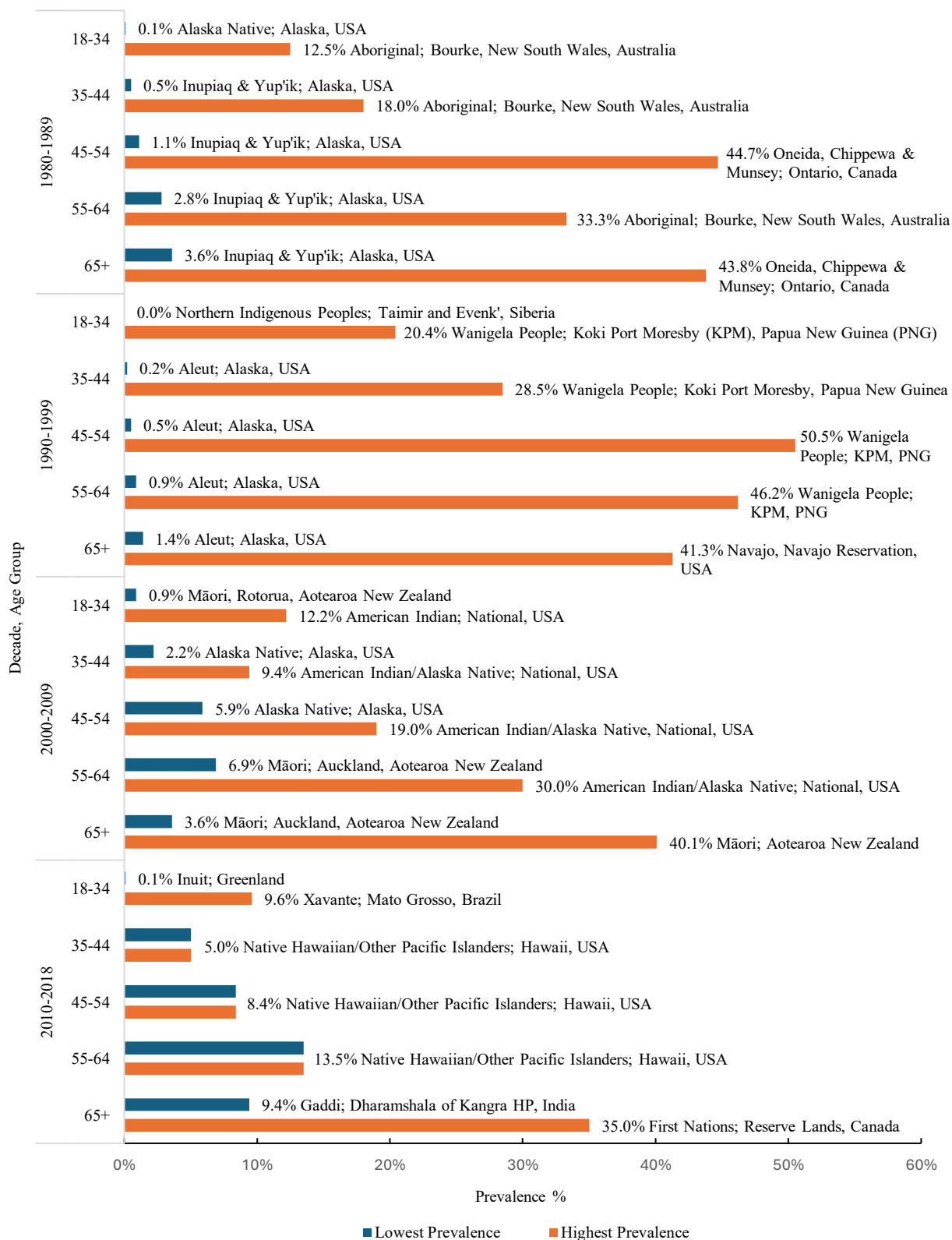
## Prevalence of type 2 diabetes among global Indigenous adult populations: a systematic review

ESM Figure 2. Type 2 diabetes prevalence ranges according to mode of determining diabetes



## Prevalence of type 2 diabetes among global Indigenous adult populations: a systematic review

ESM Figure 3. Age-specific Indigenous adult type 2 diabetes prevalence (%) ranges according to decade of data collection



ESM Figure 4. Sex-specific global Indigenous adult population type 2 diabetes prevalence 1980-2020



## ESM Reference List

1. Middaugh J, Talbot J, Roche J. Diabetes prevalence in Alaska, 1984-1986. *Arctic Med Res.* 1991;50(3):107-119.
2. Acton K, Rogers B, Campbell G, Johnson C, Gohdes D. Prevalence of diagnosed diabetes and selected related conditions of six reservations in Montana and Wyoming. *Diabetes Care.* 1993;16(1):263-265. doi:10.2337/diacare.16.1.263
3. Sugarman J, Percy C. Prevalence of diabetes in a Navajo Indian community [published correction appears in *Am J Public Health* 1989 Jun;79(6):690]. *Am J Public Health.* 1989;79(4):511-513. doi:10.2105/ajph.79.4.511
4. Freeman WL, Hosey GM, Diehr P, Gohdes D. Diabetes in American Indians of Washington, Oregon, and Idaho. *Diabetes Care.* 1989;12(4):282-288. doi:10.2337/diacare.12.4.282
5. Valway S, Freeman W, Kaufman S, Welty T, Helgerson SD, Gohdes D. Prevalence of diagnosed diabetes among American Indians and Alaska Natives, 1987. Estimates from a national outpatient data base. *Diabetes Care.* 1993;16(1):271-276. doi:10.2337/diacare.16.1.271
6. Stahn RM, Gohdes D, Valway SE. Diabetes and its complications among selected tribes in North Dakota, South Dakota, and Nebraska. *Diabetes Care.* 1993;16(1):244-247. doi:10.2337/diacare.16.1.244
7. Muneta B, Newman J, Wetterall S, Stevenson J. Diabetes and associated risk factors among Native Americans. *Diabetes Care.* 1993;16(12):1619-1620. doi:10.2337/diacare.16.12.1619
8. Will JC, Strauss KF, Mendlein JM, Ballew C, White LL, Peter DG. Diabetes mellitus among Navajo Indians: findings from the Navajo Health and Nutrition Survey. *J Nutr.* 1997;127(10 Suppl):2106S-2113S. doi:10.1093/jn/127.10.2106S
9. Aluli NE, Jones KL, Reyes PW, Brady SK, Tsark JU, Howard BV. Diabetes and cardiovascular risk factors in Native Hawaiians. *Hawaii Med J.* 2009;68(7):152-157
10. Schraer CD, Adler AI, Mayer AM, Halderson KR, Trimble BA. Diabetes complications and mortality among Alaska Natives: 8 years of observation. *Diabetes Care.* 1997;20(3):314-321. doi:10.2337/diacare.20.3.314
11. Grandinetti A, Chang HK, Mau MK, et al. Prevalence of glucose intolerance among Native Hawaiians in two rural communities. Native Hawaiian Health Research (NHHR) Project. *Diabetes Care.* 1998;21(4):549-554. doi:10.2337/diacare.21.4.549
12. de Courten MP, Pettitt DJ, Knowler WC. Hypertension in Pima Indians: prevalence and predictors. *Public Health Rep.* 1996;111 Suppl 2(Suppl 2):40-43.
13. Ebbesson SO, Kennish J, Ebbesson L, Go O, Yeh J. Diabetes is related to fatty acid imbalance in Eskimos. *Int J Circumpolar Health.* 1999;58(2):108-119.
14. Jolly SE, Koller KR, Metzger JS, et al. Prevalence of Hypertension and Associated Risk Factors in Western Alaska Native People: The Western Alaska Tribal Collaborative for Health (WATCH) Study. *J Clin Hypertens (Greenwich).* 2015;17(10):812-818. doi:10.1111/jch.12483
15. Gilliland FD, Mahler R, Hunt WC, Davis SM. Preventive health care among rural American Indians in New Mexico. *Prev Med.* 1999;28(2):194-202. doi:10.1006/pmed.1998.0401
16. Aminov Z, Haase R, Carpenter DO. Diabetes in Native Americans: elevated risk as a result of exposure to polychlorinated biphenyls (PCBs). *Rev Environ Health.* 2016;31(1):115-119. doi:10.1515/reveh-2015-0054
17. Centers for Disease Control and Prevention (CDC). Prevalence of diagnosed diabetes among American Indians/Alaskan Natives--United States, 1996. *MMWR Morb Mortal Wkly Rep.* 1998;47(42):901-904.
18. Daw J. Contribution of Four Comorbid Conditions to Racial/Ethnic Disparities in Mortality Risk. *Am J Prev Med.* 2017;52(1S1):S95-S102. doi:10.1016/j.amepre.2016.07.036
19. Levin S, Mayer-Davis EJ, Ainsworth BE, Addy CL, Wheeler FC. Behavioral and demographic correlates of diabetes, hypertension and overweight among the Catawba Indian Nation. *Ethn Dis.* 2001;11(2):241-250.

20. Scavini M, Stidley CA, Shah VO, et al. Prevalence of diabetes is higher among female than male Zuni indians. *Diabetes Care*. 2003;26(1):55-60. doi:10.2337/diacare.26.1.55
21. Carter EA, MacCluer JW, Dyke B, et al. Diabetes mellitus and impaired fasting glucose in Alaska Eskimos: the Genetics of Coronary Artery Disease in Alaska Natives (GOCADAN) study. *Diabetologia*. 2006;49(1):29-35. doi:10.1007/s00125-005-0071-9
22. Chiem B, Nguyen V, Wu PL, Ko CM, Cruz LA, Sadler GR. Cardiovascular risk factors among Chamorros. *BMC Public Health*. 2006;6:298. Published 2006 Dec 8. doi:10.1186/1471-2458-6-298
23. McNeely MJ, Boyko EJ. Type 2 diabetes prevalence in Asian Americans: results of a national health survey. *Diabetes Care*. 2004;27(1):66-69. doi:10.2337/diacare.27.1.66
24. Liao Y, Tucker P, Okoro CA, et al. REACH 2010 Surveillance for Health Status in Minority Communities --- United States, 2001--2002. *MMWR Surveill Summ*. 2004;53(6):1-36.
25. Centers for Disease Control and Prevention (CDC). Diabetes prevalence among American Indians and Alaska Natives and the overall population--United States, 1994-2002. *MMWR Morb Mortal Wkly Rep*. 2003;52(30):702-704.
26. Hodge FS, Cantrell BG, Kim S. Health status and sociodemographic characteristics of the morbidly obese American Indians. *Ethn Dis*. 2011;21(1):52-57.
27. Reid JL, Morton DJ, Wingard DL, et al. Sex and age differences in the association of obesity and smoking with hypertension and type 2 diabetes in Southern California American Indians, 2002-2006. *Ethn Dis*. 2010;20(3):231-238.
28. Oser CS, Harwell TS, Strasheim C, et al. Increasing prevalence of cardiovascular risk factors among American Indians in Montana. *Am J Prev Med*. 2005;28(3):295-297. doi:10.1016/j.amepre.2004.12.014
29. Wu PL, Sadler GR, Nguyen V, et al. Diabetes management in San Diego's Chamorro community. *Diabetes Educ*. 2005;31(3):379-390. doi:10.1177/0145721705276579
30. Holm JE, Vogeltanz-Holm N, Poltavski D, McDonald L. Assessing health status, behavioral risks, and health disparities in American Indians living on the northern plains of the U.S. *Public Health Rep*. 2010;125(1):68-78. doi:10.1177/003335491012500110
31. Cabassa LJ, Blanco C, Lopez-Castroman J, Lin KH, Lui SM, Lewis-Fernández R. Racial and ethnic differences in diabetes mellitus among people with and without psychiatric disorders: results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Gen Hosp Psychiatry*. 2011;33(2):107-115. doi:10.1016/j.genhosppsych.2010.11.011
32. Barnes PM, Adams PF, Powell-Griner E. Health characteristics of the American Indian or Alaska Native adult population: United States, 2004-2008. *Natl Health Stat Report*. 2010;(20):1-22.
33. Harjo TC, Perez A, Lopez V, Wong ND. Prevalence of diabetes and cardiovascular risk factors among California Native American adults compared to other ethnicities: the 2005 California Health Interview Survey. *Metab Syndr Relat Disord*. 2011;9(1):49-54. doi:10.1089/met.2010.0043
34. Blue Bird Jernigan V, Duran B, Ahn D, Winkleby M. Changing patterns in health behaviors and risk factors related to cardiovascular disease among American Indians and Alaska Natives. *Am J Public Health*. 2010;100(4):677-683. doi:10.2105/AJPH.2009.164285
35. Subica AM, Agarwal N, Sullivan JG, Link BG. Obesity and Associated Health Disparities Among Understudied Multiracial, Pacific Islander, and American Indian Adults. *Obesity (Silver Spring)*. 2017;25(12):2128-2136. doi:10.1002/oby.21954
36. Narayanan ML, Schraer CD, Bulkow LR, et al. Diabetes prevalence, incidence, complications and mortality among Alaska Native people 1985-2006. *Int J Circumpolar Health*. 2010;69(3):236-252. doi:10.3402/ijch.v69i3.17618
37. Choi SE, Liu M, Palaniappan LP, Wang EJ, Wong ND. Gender and ethnic differences in the prevalence of type 2 diabetes among Asian subgroups in California. *J Diabetes Complications*. 2013;27(5):429-435. doi:10.1016/j.jdiacomp.2013.01.002

38. Liao Y, Bang D, Cosgrove S, et al. Surveillance of health status in minority communities - Racial and Ethnic Approaches to Community Health Across the U.S. (REACH U.S.) Risk Factor Survey, United States, 2009. *MMWR Surveill Summ.* 2011;60(6):1-44.
39. Karter AJ, Schillinger D, Adams AS, et al. Elevated rates of diabetes in Pacific Islanders and Asian subgroups: The Diabetes Study of Northern California (DISTANCE). *Diabetes Care.* 2013;36(3):574-579. doi:10.2337/dc12-0722
40. Kirtland KA, Cho P, Geiss LS. Diabetes Among Asians and Native Hawaiians or other Pacific Islanders--United States, 2011-2014. *MMWR Morb Mortal Wkly Rep.* 2015;64(45):1261-1266. Published 2015 Nov 20. doi:10.15585/mmwr.mm6445a2
41. Uchima O, Wu YY, Browne C, Braun KL. Disparities in Diabetes Prevalence Among Native Hawaiians/Other Pacific Islanders and Asians in Hawai'i. *Prev Chronic Dis.* 2019;16:E22. Published 2019 Feb 21. doi:10.5888/pcd16.180187
42. Love CV, Taniguchi TE, Williams MB, et al. Diabetes and Obesity Associated with Poor Food Environments in American Indian Communities: the Tribal Health and Resilience in Vulnerable Environments (THRIVE) Study. *Curr Dev Nutr.* 2018;3(Suppl 2):63-68. Published 2018 Dec 5. doi:10.1093/cdn/nzy099
43. Towne SD, Bolin J, Ferdinand A, Nicklett EJ, Smith ML, Ory MG. Assessing Diabetes and Factors Associated with Foregoing Medical Care among Persons with Diabetes: Disparities Facing American Indian/Alaska Native, Black, Hispanic, Low Income, and Southern Adults in the U.S. (2011-2015). *Int J Environ Res Public Health.* 2017;14(5):464. Published 2017 Apr 26. doi:10.3390/ijerph14050464
44. Bullock A, Sheff K, Hora I, et al. Prevalence of diagnosed diabetes in American Indian and Alaska Native adults, 2006-2017. *BMJ Open Diabetes Res Care.* 2020;8(1):e001218. doi:10.1136/bmjdr-2020-001218
45. Young TK, McIntyre LL, Dooley J, Rodriguez J. Epidemiologic features of diabetes mellitus among Indians in northwestern Ontario and northeastern Manitoba. *Can Med Assoc J.* 1985;132(7):793-797.
46. Evers S, McCracken E, Antone I, Deagle G. The prevalence of diabetes in Indians and Caucasians living in southwestern Ontario. *Can J Public Health.* 1987;78(4):240-243.
47. Horn OK, Jacobs-Whyte H, Ing A, Bruegl A, Paradis G, Macaulay AC. Incidence and prevalence of type 2 diabetes in the First Nation community of Kahnawá:ke, Quebec, Canada, 1986-2003. *Can J Public Health.* 2007;98(6):438-443. doi:10.1007/BF03405434
48. Delisle HF, Ekoé JM. Prevalence of non-insulin-dependent diabetes mellitus and impaired glucose tolerance in two Algonquin communities in Quebec. *CMAJ.* 1993;148(1):41-47.
49. Pioro MP, Dyck RF, Gillis DC. Diabetes prevalence rates among First Nations adults on Saskatchewan reserves in 1990: comparison by tribal grouping, geography and with non-First Nations people. *Can J Public Health.* 1996;87(5):325-328.
50. Bruce, Sharon & Kliewer, Erich & Kue, T. & Mayer, Teresa. (2003). Diabetes Among the Métis of Canada: Defining the Population, Estimating the Disease. 27. <https://portal.usask.ca/record/5355>
51. Harris SB, Gittelsohn J, Hanley A, et al. The prevalence of NIDDM and associated risk factors in native Canadians. *Diabetes Care.* 1997;20(2):185-187. doi:10.2337/diacare.20.2.185
52. Johnson S, Martin D, Sarin C. Diabetes mellitus in the First Nations population of British Columbia, Canada. Part 3. Prevalence of diagnosed cases. *Int J Circumpolar Health.* 2002;61(3):260-264. doi:10.3402/ijch.v61i3.17460
53. Green C, Blanchard JF, Young TK, Griffith J. The epidemiology of diabetes in the Manitoba-registered First Nation population: current patterns and comparative trends. *Diabetes Care.* 2003;26(7):1993-1998. doi:10.2337/diacare.26.7.1993
54. Bruce SG, Young TK. Prevalence and risk factors for neuropathy in a Canadian First Nation community. *Diabetes Care.* 2008;31(9):1837-1841. doi:10.2337/dc08-0278

55. Bruce SG, Riediger ND, Zacharias JM, Young TK. Obesity and obesity-related comorbidities in a Canadian First Nation population. *Chronic Dis Can.* 2010;31(1):27-32.
56. Dyck R, Osgood N, Lin TH, Gao A, Stang MR. Epidemiology of diabetes mellitus among First Nations and non-First Nations adults. *CMAJ.* 2010;182(3):249-256. doi:10.1503/cmaj.090846
57. Oster RT, Grier A, Lightning R, Mayan MJ, Toth EL. Cultural continuity, traditional Indigenous language, and diabetes in Alberta First Nations: a mixed methods study. *Int J Equity Health.* 2014;13:92. Published 2014 Oct 19. doi:10.1186/s12939-014-0092-4
58. Bruce SG, Riediger ND, Lix LM. Chronic disease and chronic disease risk factors among First Nations, Inuit and Métis populations of northern Canada. *Chronic Dis Inj Can.* 2014;34(4):210-217.
59. Johnson JA, Vermeulen SU, Toth EL, et al. Increasing incidence and prevalence of diabetes among the Status Aboriginal population in urban and rural Alberta, 1995-2006. *Can J Public Health.* 2009;100(3):231-236. doi:10.1007/BF03405547
60. Pelletier C, Dai S, Roberts KC, Bienek A, Onysko J, Pelletier L. Report summary. Diabetes in Canada: facts and figures from a public health perspective. *Chronic Dis Inj Can.* 2012;33(1):53-54.
61. Ralph-Campbell K, Oster RT, Connor T, et al. Increasing rates of diabetes and cardiovascular risk in Métis Settlements in northern Alberta. *Int J Circumpolar Health.* 2009;68(5):433-442. doi:10.3402/ijch.v68i5.17382
62. Egeland GM, Cao Z, Young TK. Hypertriglyceridemic-waist phenotype and glucose intolerance among Canadian Inuit: the International Polar Year Inuit Health Survey for Adults 2007-2008. *CMAJ.* 2011;183(9):E553-E558. doi:10.1503/cmaj.101801
63. Hu XF, Singh K, Kenny TA, Chan HM. Prevalence of heart attack and stroke and associated risk factors among Inuit in Canada: A comparison with the general Canadian population. *Int J Hyg Environ Health.* 2019;222(2):319-326. doi:10.1016/j.ijheh.2018.12.003
64. Batal M, Chan HM, Fediuk K, et al. Associations of health status and diabetes among First Nations Peoples living on-reserve in Canada. *Can J Public Health.* 2021;112(Suppl 1):154-167. doi:10.17269/s41997-021-00488-6
65. Shah BR, Cauch-Dudek K, Pigeau L. Diabetes prevalence and care in the Metis population of Ontario, Canada. *Diabetes Care.* 2011;34(12):2555-2556. doi:10.2337/dc11-0945
66. Riediger ND, Lix LM, Lukianchuk V, Bruce S. Trends in diabetes and cardiometabolic conditions in a Canadian First Nation community, 2002-2003 to 2011-2012. *Prev Chronic Dis.* 2014;11:E198. Published 2014 Nov 13. doi:10.5888/pcd11.140334
67. Marushka L, Batal M, David W, et al. Association between fish consumption, dietary omega-3 fatty acids and persistent organic pollutants intake, and type 2 diabetes in 18 First Nations in Ontario, Canada. *Environ Res.* 2017;156:725-737. doi:10.1016/j.envres.2017.04.034
68. Dyck RF, Karunanayake C, Janzen B, et al. Do discrimination, residential school attendance and cultural disruption add to individual-level diabetes risk among Aboriginal people in Canada?. *BMC Public Health.* 2015;15:1222. Published 2015 Dec 9. doi:10.1186/s12889-015-2551-2
69. Walker JD, Slater M, Jones CR, et al. Diabetes prevalence, incidence and mortality in First Nations and other people in Ontario, 1995-2014: a population-based study using linked administrative data [published correction appears in *CMAJ.* 2021 Jan 18;193(3):E105]. *CMAJ.* 2020;192(6):E128-E135. doi:10.1503/cmaj.190836
70. Matsumoto CL, Tobe S, Schreiber YS, et al. Diabetes prevalence and demographics in 25 First Nations communities in northwest Ontario (2014-2017). *Can J Rural Med.* 2020;25(4):139-144. doi:10.4103/CJRM.CJRM\_99\_19
71. Avery L, Maddox R, Abtan R, et al. Modelling prevalent cardiovascular disease in an urban Indigenous population. *Can J Public Health.* Published online August 9, 2022. doi:10.17269/s41997-022-00669-x

72. Chan BTB, Sodhi SK, Mecredy GC, Farrell T, Gordon J. Diabetes prevalence and complication rates: In individual First Nations communities in the Sioux Lookout region of Ontario. *Can Fam Physician*. 2021;67(8):601-607. doi:10.46747/cfp.6708601
73. Loria A, Arroyo P, Fernandez V, Pardio J, Laviada H. Prevalence of obesity and diabetes in the socioeconomic transition of rural Mayas of Yucatan from 1962 to 2000. *Ethn Health*. 2020;25(5):679-685. doi:10.1080/13557858.2018.1442560
74. Jimenez-Corona A, Nelson RG, Jimenez-Corona ME, et al. Disparities in prediabetes and type 2 diabetes prevalence between indigenous and nonindigenous populations from Southeastern Mexico: The Comitán Study. *J Clin Transl Endocrinol*. 2019;16:100191. Published 2019 Apr 20. doi:10.1016/j.jcte.2019.100191
75. Pacheco LS, Hernández-Ontiveros DA, Iniguez-Stevens E, et al. Prevalence and correlates of diabetes and metabolic syndrome in a rural indigenous community in Baja California, Mexico. *BMC Public Health*. 2018;18(1):1397. Published 2018 Dec 20. doi:10.1186/s12889-018-6276-x
76. Mendoza-Catalán G, Parra-Torres NM, Almonte-Becerril M. Risk of chronic diseases in indigenous Totonacs from Mexico short running title: Risk of chronic diseases in indigenous Totonacs. *Appl Nurs Res*. 2022;63:151543. doi:10.1016/j.apnr.2021.151543
77. McGorrian C, Daly L, Fitzpatrick P, et al. Cardiovascular disease and risk factors in an indigenous minority population. The All-Ireland Traveller Health Study. *Eur J Prev Cardiol*. 2012;19(6):1444-1453. doi:10.1177/1741826711428059
78. Jørgensen ME, Borch-Johnsen K, Witte DR, Bjerregaard P. Diabetes in Greenland and its relationship with urbanization. *Diabet Med*. 2012;29(6):755-760. doi:10.1111/j.1464-5491.2011.03527.x
79. Viskum ES, Pedersen ML. Prevalence of diagnosed diabetes and quality of care among Greenlanders and non-Greenlanders in Greenland. *Diabetes Res Clin Pract*. 2016;121:91-98. doi:10.1016/j.diabres.2016.09.006
80. Dogadin SA, Mashtakov BP, Taranushenko TE. Prevalence of type 2 diabetes in northern populations of Siberia. *Int J Circumpolar Health*. 2001;60(2):205-210.
81. Cameron WI, Moffitt PS, Williams DR. Diabetes mellitus in the Australian aborigines of Bourke, New South Wales. *Diabetes Res Clin Pract*. 1986;2(5):307-314. doi:10.1016/s0168-8227(86)80008-0
82. Williams DR, Moffitt PS, Fisher JS, Bashir HV. Diabetes and glucose tolerance in New South Wales coastal Aborigines: possible effects of non-Aboriginal genetic admixture. *Diabetologia*. 1987;30(2):72-77. doi:10.1007/BF00274574
83. Gault A, O'Dea K, Rowley KG, McLeay T, Traianedes K. Abnormal glucose tolerance and other coronary heart disease risk factors in an isolated aboriginal community in central Australia. *Diabetes Care*. 1996;19(11):1269-1273. doi:10.2337/diacare.19.11.1269
84. Hoy WE, Norman RJ, Hayhurst BG, Pugsley DJ. A health profile of adults in a Northern Territory aboriginal community, with an emphasis on preventable morbidities. *Aust N Z J Public Health*. 1997;21(2):121-126. doi:10.1111/j.1467-842x.1997.tb01670.x
85. Wang Z, Hoy WE. Body size measurements as predictors of type 2 diabetes in Aboriginal people. *Int J Obes Relat Metab Disord*. 2004;28(12):1580-1584. doi:10.1038/sj.ijo.0802771
86. Wang Z, Hoy WE. Hypertension, dyslipidemia, body mass index, diabetes and smoking status in Aboriginal Australians in a remote community. *Ethn Dis*. 2003;13(3):324-330.
87. McDonald SP, Maguire GP, Hoy WE. Renal function and cardiovascular risk markers in a remote Australian Aboriginal community. *Nephrol Dial Transplant*. 2003;18(8):1555-1561. doi:10.1093/ndt/gfg199
88. Leonard D, McDermott R, Odea K, et al. Obesity, diabetes and associated cardiovascular risk factors among Torres Strait Islander people. *Aust N Z J Public Health*. 2002;26(2):144-149. doi:10.1111/j.1467-842x.2002.tb00907.x
89. Wang Z, Rowley K, Wang Z, Piers L, O'Dea K. Anthropometric indices and their relationship with diabetes, hypertension and dyslipidemia in Australian Aboriginal people and Torres Strait

- Islanders. *Eur J Cardiovasc Prev Rehabil.* 2007;14(2):172-178. doi:10.1097/01.hjr.0000220580.34763.fb
90. McDermott R, Rowley KG, Lee AJ, Knight S, O'Dea K. Increase in prevalence of obesity and diabetes and decrease in plasma cholesterol in a central Australian aboriginal community. *Med J Aust.* 2000;172(10):480-484. doi:10.5694/j.1326-5377.2000.tb124071.x
91. Rowley KG, Gault A, McDermott R, Knight S, McLeay T, O'Dea K. Reduced prevalence of impaired glucose tolerance and no change in prevalence of diabetes despite increasing BMI among Aboriginal people from a group of remote homeland communities. *Diabetes Care.* 2000;23(7):898-904. doi:10.2337/diacare.23.7.898
92. Guest CS, O'Dea K, Hopper JL, Nankervis AJ, Larkins RG. The prevalence of glucose intolerance in aborigines and Europids of south-eastern Australia. *Diabetes Res Clin Pract.* 1992;15(3):227-235. doi:10.1016/0168-8227(92)90029-q
93. Thompson PL, Bradshaw PJ, Veroni M, Wilkes ET. Cardiovascular risk among urban Aboriginal people. *Med J Aust.* 2003;179(3):143-146. doi:10.5694/j.1326-5377.2003.tb05473.x
94. McCulloch B, McDermott R, Miller G, Leonard D, Elwell M, Muller R. Self-reported diabetes and health behaviors in remote indigenous communities in northern queensland, australia. *Diabetes Care.* 2003;26(2):397-403. doi:10.2337/diacare.26.2.397
95. Hoy WE, Kondalsamy-Chennakesavan S, Wang Z, et al. Quantifying the excess risk for proteinuria, hypertension and diabetes in Australian Aborigines: comparison of profiles in three remote communities in the Northern Territory with those in the AusDiab study. *Aust N Z J Public Health.* 2007;31(2):177-183. doi:10.1111/j.1753-6405.2007.00038.x
96. Brimblecombe J, Mackerras D, Garnngulpuy J, et al. Leanness and type 2 diabetes in a population of indigenous Australians. *Diabetes Res Clin Pract.* 2006;72(1):93-99. doi:10.1016/j.diabres.2005.09.014
97. Zhao Y, Connors C, Wright J, Guthridge S, Bailie R. Estimating chronic disease prevalence among the remote Aboriginal population of the Northern Territory using multiple data sources. *Aust N Z J Public Health.* 2008;32(4):307-313. doi:10.1111/j.1753-6405.2008.00245.x
98. O'Dea K, Cunningham J, Maple-Brown L, et al. Diabetes and cardiovascular risk factors in urban Indigenous adults: Results from the DRUID study. *Diabetes Res Clin Pract.* 2008;80(3):483-489. doi:10.1016/j.diabres.2008.02.008
99. Arnold LW, Hoy WE, Sharma SK, Wang Z. The Association between HbA1c and Cardiovascular Disease Markers in a Remote Indigenous Australian Community with and without Diagnosed Diabetes. *J Diabetes Res.* 2016;2016:5342304. doi:10.1155/2016/5342304
100. Brown A, Carrington MJ, McGrady M, et al. Cardiometabolic risk and disease in Indigenous Australians: the heart of the heart study. *Int J Cardiol.* 2014;171(3):377-383. doi:10.1016/j.ijcard.2013.12.026
101. Jeffries-Stokes CA, Stokes AM, McDonald L, Evans S, Anderson Deceased L, Robinson PM. Risk factors for renal disease and diabetes in remote Australia - findings from The Western Desert Kidney Health Project. *Rural Remote Health.* 2020;20(2):5440. doi:10.22605/RRH5440
102. Hare MJL, Zhao Y, Guthridge S, et al. Prevalence and incidence of diabetes among Aboriginal people in remote communities of the Northern Territory, Australia: a retrospective, longitudinal data-linkage study. *BMJ Open.* 2022;12(5):e059716. Published 2022 May 15. doi:10.1136/bmjopen-2021-059716
103. Simmons D, Gatland B, Fleming C, Leakehe L, Scragg R. Prevalence of known diabetes in a multiethnic community. *N Z Med J.* 1994;107(979):219-222.
104. Simmons D, Harry T, Gatland B. Prevalence of known diabetes in different ethnic groups in inner urban South Auckland. *N Z Med J.* 1999;112(1094):316-319.
105. Sundborn G, Metcalf P, Scragg R, et al. Ethnic differences in the prevalence of new and known diabetes mellitus, impaired glucose tolerance, and impaired fasting glucose. *Diabetes Heart and Health Survey (DHAH) 2002-2003, Auckland New Zealand [published correction*

- appears in N Z Med J. 2007;120(1264):U2797]. N Z Med J. 2007;120(1257):U2607. Published 2007 Jun 29.
106. Halim AA, Basu A, Kirk R. The Prevalence of Body Mass Index-Associated Chronic Diseases in Diverse Ethnic Groups in New Zealand. *Asia Pac J Public Health*. 2019;31(1):84-91. doi:10.1177/1010539518822438
107. Tipene-Leach D, Pahau H, Joseph N, et al. Insulin resistance in a rural Maori community. *N Z Med J*. 2004;117(1207):U1208. Published 2004 Dec 17.
108. Chan WC, Jackson G, Wright CS, et al. The future of population registers: linking routine health datasets to assess a population's current glycaemic status for quality improvement. *BMJ Open*. 2014;4(4):e003975. Published 2014 Apr 28. doi:10.1136/bmjopen-2013-003975
109. Smith J, Jackson G, Orr-Walker B, et al. A population-based approach to the estimation of diabetes prevalence and health resource utilisation. *N Z Med J*. 2010;123(1310):62-73. Published 2010 Mar 5.
110. Joshy G, Porter T, Le Lievre C, Lane J, Williams M, Lawrenson R. Prevalence of diabetes in New Zealand general practice: the influence of ethnicity and social deprivation. *J Epidemiol Community Health*. 2009;63(5):386-390. doi:10.1136/jech.2008.078873
111. Coppell KJ, Mann JI, Williams SM, et al. Prevalence of diagnosed and undiagnosed diabetes and prediabetes in New Zealand: findings from the 2008/09 Adult Nutrition Survey. *N Z Med J*. 2013;126(1370):23-42. Published 2013 Mar 1.
112. Winnard D, Wright C, Jackson G, et al. Gout, diabetes and cardiovascular disease in the Aotearoa New Zealand adult population: co-prevalence and implications for clinical practice. *N Z Med J*. 2012;126(1368):53-64. Published 2012 Jan 25.
113. King H, Taylor R, Koteka G, et al. Glucose tolerance in Polynesia. Population-based surveys in Rarotonga and Niue. *Med J Aust*. 1986;145(10):505-510. doi:10.5694/j.1326-5377.1986.tb139452.x
114. Shmulewitz D, Auerbach SB, Lehner T, et al. Epidemiology and factor analysis of obesity, type II diabetes, hypertension, and dyslipidemia (syndrome X) on the Island of Kosrae, Federated States of Micronesia. *Hum Hered*. 2001;51(1-2):8-19. doi:10.1159/000022953
115. Murdock D, Salit J, Stoffel M, et al. Longitudinal study shows increasing obesity and hyperglycemia in micronesia. *Obesity (Silver Spring)*. 2013;21(9):E421-E427. doi:10.1002/oby.20041
116. Taylor R, Badcock J, King H, et al. Dietary intake, exercise, obesity and noncommunicable disease in rural and urban populations of three Pacific Island countries. *J Am Coll Nutr*. 1992;11(3):283-293. doi:10.1080/07315724.1992.10718229
117. King H, Zimmet P, Raper LR, Balkau B. Risk factors for diabetes in three Pacific populations. *Am J Epidemiol*. 1984;119(3):396-409. doi:10.1093/oxfordjournals.aje.a113758
118. Zimmet P, Taylor R, Ram P, et al. Prevalence of diabetes and impaired glucose tolerance in the biracial (Melanesian and Indian) population of Fiji: a rural-urban comparison. *Am J Epidemiol*. 1983;118(5):673-688. doi:10.1093/oxfordjournals.aje.a113678
119. Hoskins PL, Handelsman DJ, Hannelly T, Silink M, Yue DK, Turtle JR. Glycosylated hemoglobin as an index of the prevalence and severity of diabetes in biethnic Fiji. *Diabetes Res Clin Pract*. 1987;3(5):257-267. doi:10.1016/s0168-8227(87)80049-9
120. Lako JV. Dietary trend and diabetes: its association among indigenous Fijians 1952 to 1994. *Asia Pac J Clin Nutr*. 2001;10(3):183-187. doi:10.1046/j.1440-6047.2001.00248.x
121. Durand AM, Bourne J, Tuohey-Mote D, Khorram KD, Abraham IJ. Diabetes in the indigenous population of the Commonwealth of the Northern Mariana Islands. *Asia Pac J Public Health*. 1996;9:28-32. doi:10.1177/101053959700900106
122. Dowse GK, Zimmet PZ, Finch CF, Collins VR. Decline in incidence of epidemic glucose intolerance in Nauruans: implications for the "thrifty genotype". *Am J Epidemiol*. 1991;133(11):1093-1104. doi:10.1093/oxfordjournals.aje.a115822

123. King H, Finch C, Collins A, et al. Glucose tolerance in Papua New Guinea: ethnic differences, association with environmental and behavioural factors and the possible emergence of glucose intolerance in a highland community. *Med J Aust.* 1989;151(4):204-210. doi:10.5694/j.1326-5377.1989.tb115991.x
124. King H, Finch C, Koki G, King LF, Alpers M, Zimmet P. Glucose tolerance in Papua New Guinea: comparison of Austronesian and non-Austronesian communities of Karkar Island. *Diabet Med.* 1991;8(5):481-488. doi:10.1111/j.1464-5491.1991.tb01636.x
125. Dowse GK, Spark RA, Mavo B, et al. Extraordinary prevalence of non-insulin-dependent diabetes mellitus and bimodal plasma glucose distribution in the Wanigela people of Papua New Guinea. *Med J Aust.* 1994;160(12):767-774. doi:10.5694/j.1326-5377.1994.tb125945.x
126. Collins VR, Dowse GK, Toelupe PM, et al. Increasing prevalence of NIDDM in the Pacific island population of Western Samoa over a 13-year period. *Diabetes Care.* 1994;17(4):288-296. doi:10.2337/diacare.17.4.288
127. Tafuna'i M, Turner R, Matalavea B, et al. Results of a community-based screening programme for chronic kidney disease and associated risk factors, (obesity, diabetes and hypertension) in a Samoan cohort. *BMJ Open.* 2022;12(4):e056889. Published 2022 Apr 8. doi:10.1136/bmjopen-2021-056889
128. Eason RJ, Pada J, Wallace R, Henry A, Thornton R. Changing patterns of hypertension, diabetes, obesity and diet among Melanesians and Micronesians in the Solomon Islands. *Med J Aust.* 1987;146(9):465-473. doi:10.5694/j.1326-5377.1987.tb120359.x
129. Beizer RA. Prevalence of abnormal glucose tolerance in six Solomon Islands populations. *Am J Phys Anthropol.* 1990;81(4):471-482. doi:10.1002/ajpa.1330810404
130. Furusawa T, Pitakaka F, Gabriel S, Sai A, Tsukahara T, Ishida T. Health and well-being in small island communities: a cross-sectional study in the Solomon Islands. *BMJ Open.* 2021;11(11):e055106. Published 2021 Nov 12. doi:10.1136/bmjopen-2021-055106
131. Colagiuri S, Colagiuri R, Na'ati S, Muimuiheata S, Hussain Z, Palu T. The prevalence of diabetes in the kingdom of Tonga. *Diabetes Care.* 2002;25(8):1378-1383. doi:10.2337/diacare.25.8.1378
132. Li Y, Teng D, Shi X, et al. Prevalence of diabetes recorded in mainland China using 2018 diagnostic criteria from the American Diabetes Association: national cross sectional study. *BMJ.* 2020;369:m997. Published 2020 Apr 28. doi:10.1136/bmj.m997
133. Ali O, Tan TT, Sakinah O, Khalid BA, Wu LL, Ng ML. Prevalence of NIDDM and impaired glucose tolerance in aborigines and Malays in Malaysia and their relationship to sociodemographic, health, and nutritional factors. *Diabetes Care.* 1993;16(1):68-75. doi:10.2337/diacare.16.1.68
134. Lim TO, Bakri R, Morad Z, Hamid MA. Bimodality in blood glucose distribution: is it universal?. *Diabetes Care.* 2002;25(12):2212-2217. doi:10.2337/diacare.25.12.2212
135. Bianchi ME, Farias EF, Bolaño J, Massari PU. Epidemiology of renal and cardiovascular risk factors in Toba Aborigines. *Ren Fail.* 2006;28(8):665-670. doi:10.1080/08860220600925750
136. Meyerfreund D, Goncalves C, Cunha R, Pereira AC, Krieger JE, Mill JG. Age-dependent increase in blood pressure in two different Native American communities in Brazil. *J Hypertens.* 2009;27(9):1753-1760. doi:10.1097/hjh.0b013e32832e0b2b
137. Dal Fabbro AL, Franco LJ, da Silva AS, et al. High prevalence of type 2 diabetes mellitus in Xavante Indians from Mato Grosso, Brazil. *Ethn Dis.* 2014;24(1):35-40.
138. Oliveira GF, Oliveira TR, Ikejiri AT, et al. Prevalence of hypertension and associated factors in an indigenous community of central Brazil: a population-based study. *PLoS One.* 2014;9(1):e86278. Published 2014 Jan 28. doi:10.1371/journal.pone.0086278
139. Franco LJ, Dal Fabbro AL, Martinez EZ, et al. Performance of glycated haemoglobin (HbA1c) as a screening test for diabetes and impaired glucose tolerance (IGT) in a high risk population--the Brazilian Xavante Indians. *Diabetes Res Clin Pract.* 2014;106(2):337-342. doi:10.1016/j.diabres.2014.08.027

140. Barbosa CC, Sacuena ESR, Pinto AM, Cardoso-Costa GL, Guerreiro JF. Anthropometric and metabolic profile of a Brazilian Amerindian group: The Xikrin (Mebengôkre). *Am J Hum Biol.* 2019;31(4):e23255. doi:10.1002/ajhb.23255
141. Gomes HLM, Sombra NM, Cordeiro EDO, et al. Glycemic profile and associated factors in indigenous Munduruku, Amazonas. *PLoS One.* 2021;16(9):e0255730. Published 2021 Sep 3. doi:10.1371/journal.pone.0255730
142. Pérez-Bravo F, Carrasco E, Santos JL, Calvillán M, Larenas G, Albala C. Prevalence of type 2 diabetes and obesity in rural Mapuche population from Chile. *Nutrition.* 2001;17(3):236-238. doi:10.1016/s0899-9007(00)00550-5
143. Steinbrook E, Flood D, Barnoya J, Montano CM, Miller AC, Rohloff P. Prevalence of Hypertension, Diabetes, and Other Cardiovascular Disease Risk Factors in Two Indigenous Municipalities in Rural Guatemala: A Population-Representative Survey. *Glob Heart.* 2022;17(1):82. Published 2022 Nov 22. doi:10.5334/gh.1171
144. Boston, C., et al. "Knowledge and Utilization of Traditional Medicine for Type 2 Diabetes Mellitus among Residents of Pakuri (St. Cuthbert's Mission) in Guyana." *Journal of Complementary and Alternative Medical Research* 2019; n. pag. doi:10.9734/jocamr/2019/v7i330100
145. Campbell JA, Walker RJ, Dawson AZ, Egede LE. Prevalence of Diabetes, Prediabetes, and Obesity in the Indigenous Kuna Population of Panamá. *J Racial Ethn Health Disparities.* 2019;6(4):743-751. doi:10.1007/s40615-019-00573-0
146. McDonald P AJ, Montenegro G JA, Cruz G CE, Moreno de Rivera AL, Cumbreira O A. Prevalence, sociodemographic distribution, treatment and control of diabetes mellitus in Panama. *Diabetol Metab Syndr.* 2013;5(1):69. Published 2013 Nov 13. doi:10.1186/1758-5996-5-69
147. Kufe NC, Ngufor G, Mbeh G, Mbanya JC. Distribution and patterning of non-communicable disease risk factors in indigenous Mbororo and non-autochthonous populations in Cameroon: cross sectional study. *BMC Public Health.* 2016;16(1):1188. Published 2016 Nov 24. doi:10.1186/s12889-016-3837-8
148. Eltom MA, Babiker Mohamed AH, Elrayah-Eliadarous H, et al. Increasing prevalence of type 2 diabetes mellitus and impact of ethnicity in north Sudan. *Diabetes Res Clin Pract.* 2018;136:93-99. doi:10.1016/j.diabres.2017.11.034
149. Dajani R, Khader YS, Hakooz N, Fatahalla R, Quadani F. Metabolic syndrome between two ethnic minority groups (Circassians and Chechens) and the original inhabitants of Jordan. *Endocrine.* 2013;43(1):112-119. doi:10.1007/s12020-012-9723-y
150. Agrawal R, Singh G, Nayak K, et al. Prevalence of Diabetes in Camel-Milk Consuming Raika Rural Community of North-West Rajasthan. *International Journal of Diabetes in Developing Countries.* 01/01 2004;24:109-114.
151. Chhungi V, Ningombam SS, Yadav S, Singh HS, Devi NK, Chandel S, Mondal PR, Sachdeva MP, Saraswathy KN. Prevalence of cardiovascular risk factors among tribal and non-tribal populations with East Asian Ancestry from North East India. *Am J Hum Biol.* 2019 Sep;31(5):e23263. doi: 10.1002/ajhb.23263. Epub 2019 Jun 13. PMID: 31197927.
152. Sachdev, Bandana. (2012). Screening of Type 2 Diabetes Mellitus and Its Associated Risk Factors among Select Tribes of Rajasthan. *Int J Health Sci Res.* 2.
153. Mungreiphy NK, Kapoor S. Efficacy of obesity indices and age in predicting diabetes: study on a transitional tribe of Northeast India. *Ethn Dis.* 2014;24(3):342-348.
154. Radhakrishnan, Shankar & Ekambaram, Manivanan. (2015). Prevalence of diabetes and hypertension among a tribal population in Tamil Nadu. *Archives of Medicine and Health Sciences.* 3. 10.4103/2321-4848.154948.
155. Shah A, Afzal M. Prevalence of diabetes and hypertension and association with various risk factors among different Muslim populations of Manipur, India. *J Diabetes Metab Disord.* 2013;12(1):52. Published 2013 Dec 19. doi:10.1186/2251-6581-12-52

156. Kapoor D, Bhardwaj AK, Kumar D, Raina SK. Prevalence of Diabetes Mellitus and Its Risk Factors among Permanently Settled Tribal Individuals in Tribal and Urban Areas in Northern State of Sub-Himalayan Region of India. *Int J Chronic Dis*. 2014;2014:380597. doi:10.1155/2014/380597
157. Deo MG, Pawar PV, Kanetkar SR, Kakade SV. Prevalence and risk factors of hypertension and diabetes in the Katkari tribe of coastal Maharashtra. *J Postgrad Med*. 2017;63(2):106-113. doi:10.4103/0022-3859.194204
158. Deo MG, Pawar PV, Kanetkar SR, Kakade SV. Multicentric study on prevalence and risk factors for hypertension and diabetes in tribal communities in Western and Northern Maharashtra. *J Postgrad Med*. 2018;64(1):23-34. doi:10.4103/jpgm.JPGM\_245\_17
159. Negi PC, Chauhan R, Rana V, Vidyasagar, Lal K. Epidemiological study of non-communicable diseases (NCD) risk factors in tribal district of Kinnaur, HP: A cross-sectional study. *Indian Heart J*. 2016;68(5):655-662. doi:10.1016/j.ihj.2016.03.002
160. Purohit K, Rathore HS, Köhler-Rollefson I. Increased risk of type 2 diabetes mellitus in the Maru Raika community of Rajasthan: a cross-sectional study. *International Journal of Diabetes in Developing Countries*. 2017/12/01 2017;37(4):494-501. doi:10.1007/s13410-016-0529-y
161. Ganie MA, Sahar T, Rashid A, et al. Prevalence of diabetes and prediabetes in tribal population of Kashmir: Lessons for the future. *Diabetes research and clinical practice*. 2020;169:108457-108457. doi:10.1016/j.diabres.2020.108457
162. Ningombam, S.S., Rajkumari, S., Chhungi, V. et al. Type 2 diabetes and FTO rs9939609 gene polymorphism: a study among the two tribal population groups of Manipur, North East India. *Int J Diabetes Dev Ctries* 2019;39, 60–65. <https://doi.org/10.1007/s13410-018-0634-1>
163. Madhu B, Prathyusha K, Prakruthi P, Srinath KM. Comparison of prevalence of life style risk factors and 10 year risk of CVD event among rural and tribal population of Kollegal Taluk, Chamrajanagar district, South India. *Diabetes Metab Syndr*. 2019;13(5):2961-2966. doi:10.1016/j.dsx.2019.07.056
164. Sathiyarayanan S, Muthunayanan L, Devaparthasarathy TA. Changing Perspectives in Tribal Health: Rising Prevalence of Lifestyle Diseases among Tribal Population in India. *Indian J Community Med*. 2019;44(4):342-346. doi:10.4103/ijcm.IJCM\_40\_19
165. Devi, Ksh & Jibonkumar, Soibam. (2020). Food Habit and Risk of Pre Diabetes and Type2 Diabetes among the Meiteis of Manipur, India. *Indian Journal of Public Health Research and Development*. 11. 380-387. 10.37506/ijphrd.v1i10.11202.
166. Acton KJ, Burrows NR, Moore K, Querec L, Geiss LS, Engelgau MM. Trends in diabetes prevalence among American Indian and Alaska native children, adolescents, and young adults [published correction appears in *Am J Public Health* 2002 Nov;92(11):1709]. *Am J Public Health*. 2002;92(9):1485-1490. doi:10.2105/ajph.92.9.1485
167. Burrows NR, Geiss LS, Engelgau MM, Acton KJ. Prevalence of diabetes among Native Americans and Alaska Natives, 1990-1997: an increasing burden. *Diabetes Care*. 2000;23(12):1786-1790. doi:10.2337/diacare.23.12.1786
168. Campos-Outcalt D, Ellis J, Aickin M, Valencia J, Wunsch M, Steele L. Prevalence of cardiovascular disease risk factors in a southwestern Native American tribe. *Public Health Rep*. 1995;110(6):742-748.
169. Denny CH, Holtzman D, Goins RT, Croft JB. Disparities in chronic disease risk factors and health status between American Indian/Alaska Native and White elders: findings from a telephone survey, 2001 and 2002. *Am J Public Health*. 2005;95(5):825-827. doi:10.2105/AJPH.2004.043489
170. Jiang L, Beals J, Whitesell NR, Roubideaux Y, Manson SM; AI-SUPERPFP Team. Stress burden and diabetes in two American Indian reservation communities. *Diabetes Care*. 2008;31(3):427-429. doi:10.2337/dc07-2044

171. Lee ET, Howard BV, Savage PJ, et al. Diabetes and impaired glucose tolerance in three American Indian populations aged 45-74 years. The Strong Heart Study. *Diabetes Care*. 1995;18(5):599-610. doi:10.2337/diacare.18.5.599
172. Lee ET, Begum M, Wang W, et al. Type 2 diabetes and impaired fasting glucose in American Indians aged 5-40 years: the Cherokee diabetes study. *Ann Epidemiol*. 2004;14(9):696-704. doi:10.1016/j.annepidem.2003.10.013
173. Maskarinec G, Grandinetti A, Matsuura G, et al. Diabetes prevalence and body mass index differ by ethnicity: the Multiethnic Cohort. *Ethn Dis*. 2009;19(1):49-55.
174. Murphy NJ, Schraer CD, Bulkow LR, Boyko EJ, Lanier AP. Diabetes mellitus in Alaskan Yup'ik Eskimos and Athabascan Indians after 25 yr. *Diabetes Care*. 1992;15(10):1390-1392. doi:10.2337/diacare.15.10.1390
175. Nikolaus CJ, Zamora-Kapoor A, Hebert LE, Sinclair K. Association of food security with cardiometabolic health during young adulthood: cross-sectional comparison of American Indian adults with other racial/ethnic groups. *BMJ Open*. 2022;12(6):e054162. Published 2022 Jun 9. doi:10.1136/bmjopen-2021-054162
176. Roberts H, Jiles R, Mokdad A, Beckles G, Rios-Burrows N. Trend analysis of diagnosed diabetes prevalence among American Indian/Alaska native young adults--United States, 1994-2007. *Ethn Dis*. 2009;19(3):276-279.
177. Montour LT, Macaulay AC. High prevalence rates of diabetes mellitus and hypertension on a North American Indian reservation. *Can Med Assoc J*. 1985;132(10):1110-1112.
178. Young TK, Sevenhuysen GP, Ling N, Moffatt ME. Determinants of plasma glucose level and diabetic status in a northern Canadian Indian population. *CMAJ*. 1990;142(8):821-830.
179. Escobedo J, Chavira I, Martínez L, Velasco X, Escandón C, Cabral J. Diabetes and other glucose metabolism abnormalities in Mexican Zapotec and Mixe Indians. *Diabet Med*. 2010;27(4):412-416. doi:10.1111/j.1464-5491.2010.02966.x
180. Naseribafrouei A, Eliassen BM, Melhus M, Broderstad AR. Ethnic difference in the prevalence of pre-diabetes and diabetes mellitus in regions with Sami and non-Sami populations in Norway - the SAMINOR1 study. *Int J Circumpolar Health*. 2016;75:31697. Published 2016 Aug 8. doi:10.3402/ijch.v75.31697
181. Naseribafrouei A, Eliassen BM, Melhus M, Svartberg J, Broderstad AR. Prevalence of pre-diabetes and type 2 diabetes mellitus among Sami and non-Sami men and women in Northern Norway - The SAMINOR 2 Clinical Survey. *Int J Circumpolar Health*. 2018;77(1):1463786. doi:10.1080/22423982.2018.1463786
182. Moustgaard H, Bjerregaard P, Borch-Johnsen K, Jørgensen ME. Diabetes among Inuit migrants in Denmark. *Int J Circumpolar Health*. 2005;64(4):354-364. doi:10.3402/ijch.v64i4.18013
183. Jørgensen ME, Bjerregaard P, Borch-Johnsen K. Diabetes and impaired glucose tolerance among the inuit population of Greenland [published correction appears in *Diabetes Care*. 2002 Dec;25(12):2372]. *Diabetes Care*. 2002;25(10):1766-1771. doi:10.2337/diacare.25.10.1766
184. Gubhaju L, McNamara BJ, Banks E, et al. The overall health and risk factor profile of Australian Aboriginal and Torres Strait Islander participants from the 45 and up study. *BMC Public Health*. 2013;13:661. Published 2013 Jul 17. doi:10.1186/1471-2458-13-661
185. Keel S, Foreman J, Xie J, van Wijngaarden P, Taylor HR, Dirani M. The Prevalence of Self-Reported Diabetes in the Australian National Eye Health Survey. *PLoS One*. 2017;12(1):e0169211. Published 2017 Jan 3. doi:10.1371/journal.pone.0169211
186. O'Dea K, Patel M, Kubisch D, Hopper J, Traianedes K. Obesity, diabetes, and hyperlipidemia in a central Australian aboriginal community with a long history of acculturation. *Diabetes Care*. 1993;16(7):1004-1010. doi:10.2337/diacare.16.7.1004
187. Xie J, Arnold AL, Keeffe J, et al. Prevalence of self-reported diabetes and diabetic retinopathy in indigenous Australians: the National Indigenous Eye Health Survey. *Clin Exp Ophthalmol*. 2011;39(6):487-493. doi:10.1111/j.1442-9071.2011.02502.x

188. Cameron VA, Faatoese AF, Gillies MW, et al. A cohort study comparing cardiovascular risk factors in rural Maori, urban Maori and non-Maori communities in New Zealand. *BMJ Open*. 2012;2(3):e000799. Published 2012 Jun 8. doi:10.1136/bmjopen-2011-000799
189. Simmons D, Thompson CF, Volklander D. Polynesians: prone to obesity and Type 2 diabetes mellitus but not hyperinsulinaemia. *Diabet Med*. 2001;18(3):193-198. doi:10.1046/j.1464-5491.2001.00435.x
190. Sundborn G, Metcalf PA, Gentles D, et al. Ethnic differences in cardiovascular disease risk factors and diabetes status for Pacific ethnic groups and Europeans in the Diabetes Heart and Health Survey (DHAH) 2002-2003, Auckland New Zealand. *N Z Med J*. 2008;121(1281):28-39. Published 2008 Sep 5.
191. Brian G, Ramke J, Maher L, Page A, Szetu J. The prevalence of diabetes among adults aged 40 years and over in Fiji. *N Z Med J*. 2010;123(1327):68-75. Published 2010 Dec 17.
192. Gyaneshwar R, Naidu S, Raban MZ, et al. Absolute cardiovascular risk in a Fiji medical zone. *BMC Public Health*. 2016;16:128. Published 2016 Feb 9. doi:10.1186/s12889-016-2806-6
193. Russell-Jones DL, Hoskins P, Kearney E, et al. Rural/urban differences of diabetes--impaired glucose tolerance, hypertension, obesity, glycosolated haemoglobin, nutritional proteins, fasting cholesterol and apolipoproteins in Fijian Melanesians over 40. *Q J Med*. 1990;74(273):75-81.
194. Witter T, Poudevigne M, Lambrick DM, et al. A conceptual framework for managing modifiable risk factors for cardiovascular diseases in Fiji. *Perspect Public Health*. 2015;135(2):75-84. doi:10.1177/1757913913500045
195. Papoz L, Barny S, Simon D. Prevalence of diabetes mellitus in New Caledonia: ethnic and urban-rural differences. CALDIA Study Group. CALedonia DIAbetes Mellitus Study. *Am J Epidemiol*. 1996;143(10):1018-1024. doi:10.1093/oxfordjournals.aje.a008665
196. Osako A, Chiang C, Ito K, et al. Disparity in metabolic risk factors of non-communicable diseases between Palauans and Filipinos living in Palau. *Nagoya J Med Sci*. 2017;79(2):157-165. doi:10.18999/nagjms.79.2.157
197. Lin S, Hufanga S, Linhart C, et al. Diabetes and Obesity Trends in Tonga Over 40 Years. *Asia Pac J Public Health*. 2016;28(6):475-485. doi:10.1177/1010539516645156
198. Teh JK, Tey NP, Ng ST. Ethnic and gender differentials in non-communicable diseases and self-rated health in Malaysia. *PLoS One*. 2014;9(3):e91328. Published 2014 Mar 6. doi:10.1371/journal.pone.0091328
199. Chen HD, Shaw CK, Tseng WP, Chen HI, Lee ML. Prevalence of diabetes mellitus and impaired glucose tolerance in Aborigines and Chinese in eastern Taiwan. *Diabetes Res Clin Pract*. 1997;38(3):199-205. doi:10.1016/s0168-8227(97)00104-6
200. Chen KT, Chen CJ, Gregg EW, Engelgau MM, Narayan KM. Prevalence of type 2 diabetes mellitus in Taiwan: ethnic variation and risk factors. *Diabetes Res Clin Pract*. 2001;51(1):59-66. doi:10.1016/s0168-8227(00)00200-x
201. Chen D, Rivera-Andrade Á, González J, et al. Prevalence of risk factors for noncommunicable diseases in an indigenous community in Santiago Atitlán, Guatemala. *Rev Panam Salud Publica*. 2017;41:e7. Published 2017 Apr 20. doi:10.26633/RPSP.2017.7
202. Mollentze WF, Moore AJ, Steyn AF, et al. Coronary heart disease risk factors in a rural and urban Orange Free State black population. *S Afr Med J*. 1995;85(2):90-96.