The Lancet Lowitja Institute Global Collaboration for Indigenous and Tribal Health

April 2016

Supported by

the Lowitja Institute

Australia's National Institute for Aboriginal and Torres Strait Islander Health Research

An Australian Government Initiative

CRC AUSTRALIA

Objectives

- To describe the health and social status of Indigenous and tribal peoples relative to benchmark populations without any attempt to make comparisons between Indigenous populations

Defining Indigenous Peoples

United Nations Permanent Forum on Indigenous Peoples approach:

- Self-identification as indigenous peoples at the individual level and accepted by the community as their member.
- Historical continuity with pre-colonial and/or pre-settler societies
- Strong link to territories and surrounding natural resources
- Distinct social, economic or political systems
- Distinct language, culture and beliefs
- Form non-dominant groups of society
- Resolve to maintain and reproduce their ancestral environments and systems as distinctive peoples and communities

Countries involved

- **Australia** – Aboriginal and Torres Strait Islander
- **New Zealand** – Māori
- **India** – Schedule Tribes vulnerable tribal groups
- **Pakistan** – FATA tribal groups
- **China** – Dai (Yunnan Province), Tibet
- **Thailand**
- **Nepal**
- **Sweden** – Sami
- **Norway** – Sami
- **Circumpolar Russia** – Nentsy, others
- **Greenland** – Inuit
- **Peru** – 12 distinct language families; >50 ethnic groups
- **Chile** - Alacalufe (Kawaskar), Atacameño, Aymara, Colla, Mapuche, Quechua, Rapanui, or Yámana (Yagán)

Countries involved (cont.)

- **Colombia** – Vaupés, Guainía, La Guajira, Vichada, Amazonas, and other smaller groups
- **Panama** – Kuna, Ngäbe, Buglé, Teribe/Naso, Emberá, Wounaan, and Bri Bri
- **Venezuela** – Wayuu (Guajira), Warao, Kariña, Pemon, Jivi-Guajiro, Kumanagoto, and Añu-Paraujano
- **Brazil** – >180 languages; many different ethnic groups, >50 still uncontacted
- **Cameroon** – Baka, Bakola and Bedzang
- Myanmar
- **Nigeria** - Ijaw ethnic group and Fulani Nomads
- **Canada** – First Nations, Inuit and Métis
- **US** - American Indians, Alaskan Natives, Native Hawaiians and Pacific Islanders
- **Kenya** – Masai

Previous Studies

- 39 previous international studies (more than one country, with health indicators plus social indicators)
- 33 with one or more of Australia, New Zealand, USA, Canada
- 7 with one or more circumpolar countries
- Five South America, 2 Asia, 3 Africa
- Life Expectancy 13, IMR 11, nutritional measures, social determinants 3 etc

Methods

- Three phases. Feasibility. Collation against template with Data Review
- Data sources: 148 sources for Indigenous and benchmark data. 115 Government data, 11 non-government agencies (eg World bank, UNICEF) 22 research data
- Indigenous status was recorded in 68% of measures otherwise language or geographical proxy measures were used
- Where Indigenous status was reported 88% were by self-report
- Statistical analysis: Depends on sources. We calculated rate differences, ratios, estimated confidence intervals where possible. Some rate calculations. Indirect methods to calculate LE & IMR in India, Columbia and Tibet (IMR only)

Measures

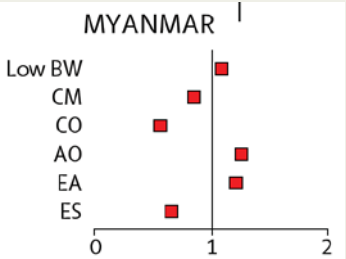
- Population
- Life Expectancy at birth
- Infant Mortality Rate
- Maternal Mortality
- Birth weight (High and Low)
- Nutritional status: Child malnutrition; child obesity; adult obesity
- Economic Status
- Educational Status

Gaps in coverage

- We cover all global regions. With health and social data from a total Indigenous population of 154 million people (constituting about 50% of the estimated global population of 302.45 million)
- Gaps in relation to Low Income countries (only one in this sample)
- China
- Data in relation to mental health, morbidity, risk factors

Findings overview

- The number of indicators reported ranged to 2 (Cameroon) or 3 (Nigeria Fulani, Norway, Russia, Thailand Venezuela) to 10 (Aust, NZ)
- Educational attainment (26 populations) and infant mortality (19 populations) were the most reported indicators
- We found evidence of poorer health and social outcomes for most Indigenous peoples but this was not uniform and the size of differences varied
- For example, Mon people in Myanmar do better on 4 indicators



Number of populations reporting each indicator

Indicator	Number of Indigenous populations
Educational attainment	26
Infant mortality	19
Life expectancy at birth	18
Poverty	18
Child malnutrition	16
Low birth weight	16
Adult obesity	13
Child obesity	12
Maternal mortality	10
High birth weight	8

Life expectancy at birth

- Widest gaps were
  - 21 years lower (Baka in Cameroon)
  - Maasai in Kenya 13 years lower
  - Aboriginal and Torres Strait Islander 10 years lower
- Gaps evident in each country income level
- Indigenous LEAB
  - <65 years in low-middle-income band
  - 70 years in high income band (except Inuit in Canada)
- Limitations - data depends on accurate identification or estimates of Indigenous deaths

Gaps in life expectancy by country income status

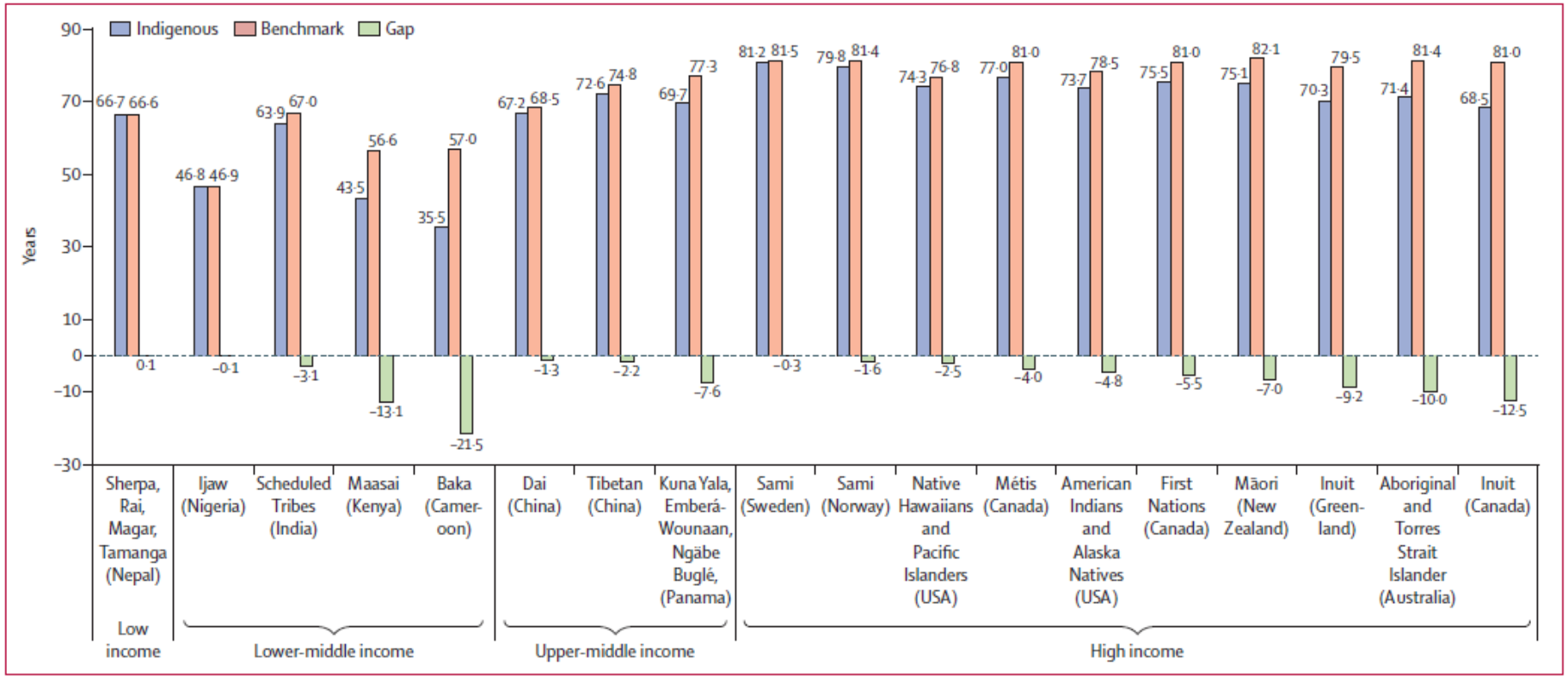
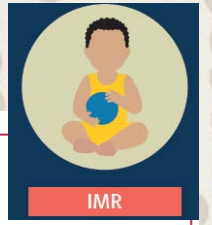


Figure 1: **Life expectancy at birth by World Bank Income level**
The figure shows the relation between country income status and life expectancy, but is not a comparison between Indigenous populations.

Infant Mortality

- Rate difference larger than 1 in 16 populations
- Largest rate differences in Russia (41/1000), Peru (31/1000), Brazil and Venezuela (25/1000 each), Colombia (21/1000)
- Largest rate ratios for Nenets in Russia (7.2), Inuit in Greenland (4.5)
- Highest Indigenous/Tribal infant mortality rates in lower-middle-income countries (Pakistan, India)
- Range of rate differences in each country income group

Infant mortality gaps by country income



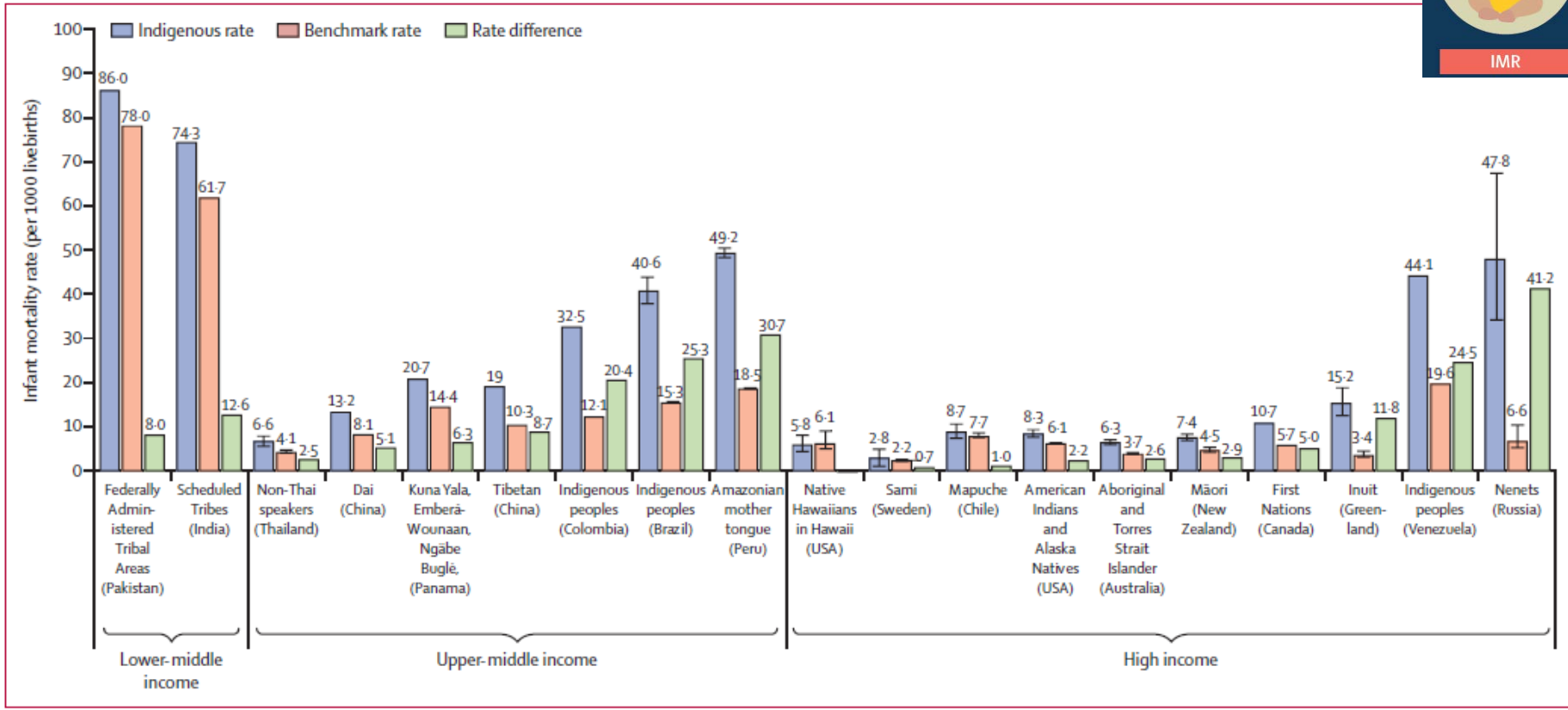


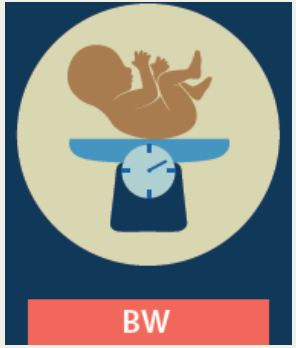
Figure 2: **Infant mortality rate by World Bank Income level**
This figure shows the relation between country income status and infant mortality rate, but is not a comparison between Indigenous populations.

Maternal mortality and birth weight

- Largest **maternal mor**tality differences in
  Panama – 199 per 100,000, Colombia – 172, Pakistan – 104

- Largest **low birth weight** differences in
  Kenya (Maasai) – 8.4% and Australia – 5.8%

- Largest **high birth weight** differences in
  Canada (First Nations) – 6.6% and Chile (Mapuche) 1.6%



Child malnutrition, child obesity, adult obesity

Child malnutrition worse for 10 of 16 populations

- Largest differences in Panama (43%), Brazil (19%), Peru and Colombia (17% each), and Pakistan (14%)

Child obesity worse for 8 of 12 populations

- Largest differences in USA (13%), New Zealand (10%), Canada (8%) and Greenland (6%)

Adult obesity worse for 7 of 13 populations

- Largest differences in New Zealand and USA (20% each), Australia and Canada (15% each)

Education attainment and Poverty

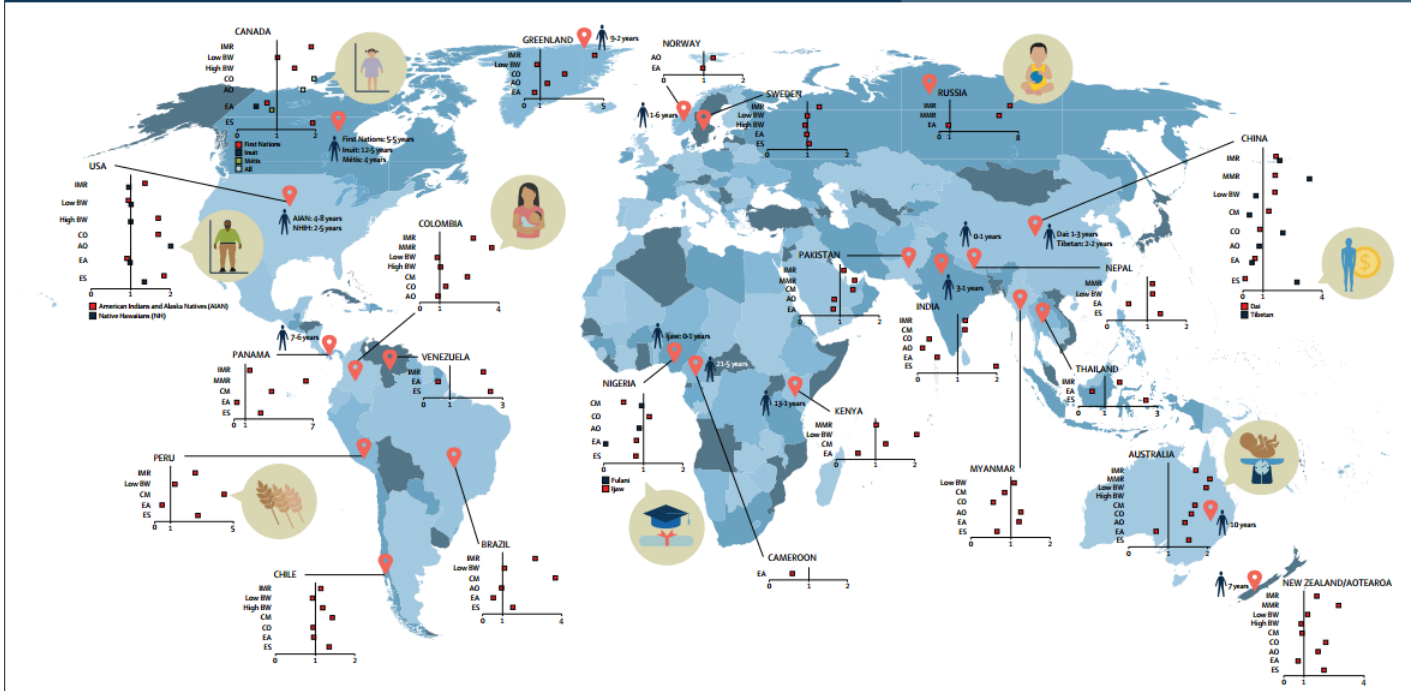
Educational attainment lower for 26 of 27 populations (Mon exception)

- Differences >40% for Inuit in Canada (47%), Nigeria (49%)
- Differences 20%–39% in Australia (28%), Cameroon (23%), Kenya (39%), 21%), New Zealand (21%), Panama (29%)

Economic status poorer for 15 of 18 populations (Dai, Mon, Ijaw exceptions)

- Largest differences >40% for Peru (52%), Venezuela (42%), Thailand (31%), Panama (36%)

Indigenous and tribal peoples' health: a population study



FOCAL POINTS: Indigenous *vs* benchmark populations

IMR — Infant mortality rate in Russia is increased over 7 times

MMR — Maternal mortality ratio in Colombia is increased over 3-6 times

BW — Low birthweight (children born under 2500g) in Australia is increased 2 times

CM — Child malnutrition in Peru is increased 4-5 times

CO — Child obesity in Canada is increased 2 times

AO — Adult obesity (BMI over 30-0) in USA increased 2 times

EA — Literacy rate in Nigeria (Fulani) is almost 0

ES — Individuals earning less than China's poverty line is increased 2-75 times (Tibetan)

Source: Anderson I, Robson B, Connolly M, et al. Indigenous and tribal peoples' health (The Lancet-Lowitja Institute Global Collaboration): a population study. Lancet 2016; published online April 20. http://dx.doi.org/10.1016/S0140-6736(16)00135-7. All data taken from Appendix.
For explanation of Benchmark populations see , Appendix; Table 1: Indigenous and Benchma rk populations by country.
For country-specific data and indicator measures see, Appendix; Tables 3–11.

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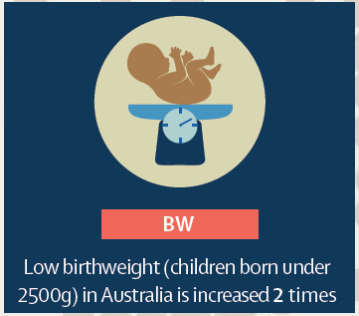
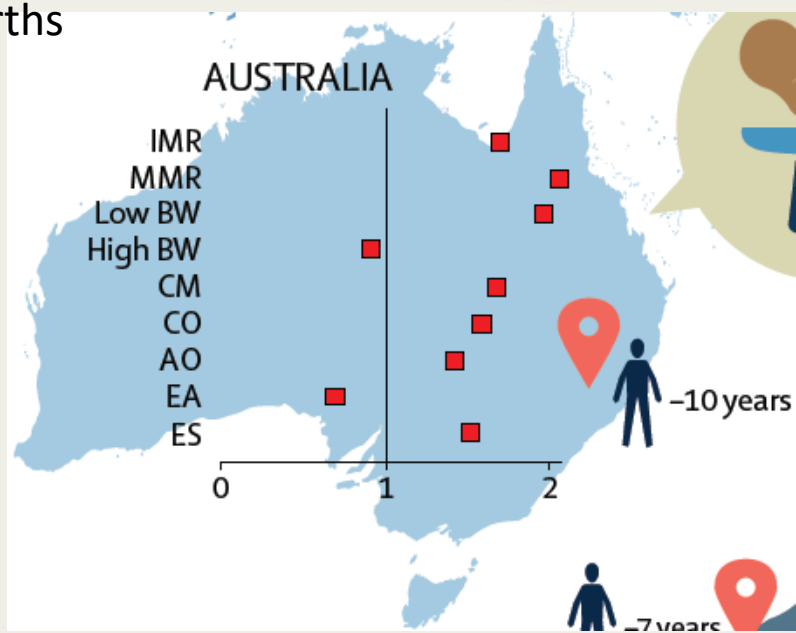
Australia



Aboriginal and Torres Strait Islander peoples 669,881 people, 3% of total

- **Life expectancy** at birth 10 years lower
- **Infant mortality** 2.6 more deaths per 1,000 live births
- **Maternal mortality** 7.2 more deaths per 100,000
- **Low birth weight** 5.8 more per 100 births
- **High birth weight** 0.1 fewer per 100 births
- **Underweight children** 3.2 more per 100
- **Child obesity** 3.7 more per 100
- **Adult obesity** 14.8 more per 100
- **Year 12 qualification** 27.6 fewer per 100
- **Low equivalised income** 18 more per 100

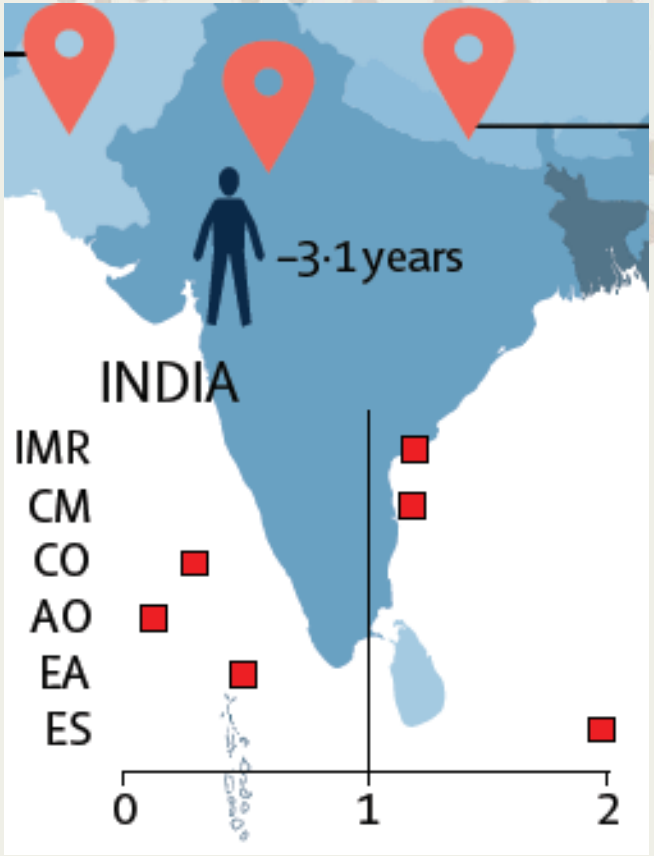


India

Scheduled tribes 104,281,034 people, 8.61% of total

Rate differences

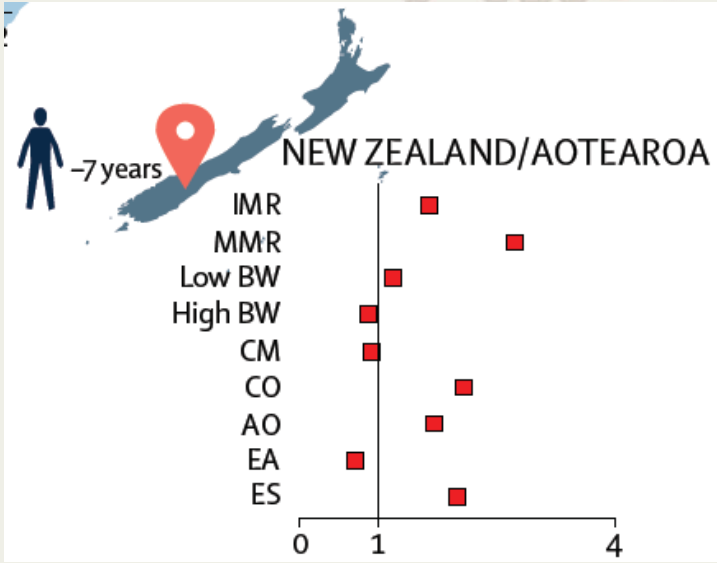
- **Life expectancy gap** -3.1 years
- **Infant mortality** 12.6 more deaths per 1000
- **Stunting** in children <5yrs 8 more per 100
- **Child obesity** 0.3 fewer per 100
- **Adult obesity** 1.5 fewer per 100
- **Year 12 qualification** 7.1 fewer per 100
- **Income less than poverty line** 20 more per 100 (twice the proportion of Benchmark population)



Aotearoa/New Zealand

Māori 598,605 people, 15% of total population (34% of children <15 yrs)

- **Life expectancy** at birth 7 years lower
- **Infant mortality** 2.9 more deaths per 1,000 live births
- **Maternal mortality** 21.7 more deaths per 100,000
- **Low birth weight** 1.1 more per 100 births
- **High birth weight** 0.3 fewer per 100 births
- **Underweight children** 0.6 fewer per 100
- **Child obesity** 9.5 more per 100
- **Adult obesity** 20 more per 100
- **Year 12 qualification** 21 fewer per 100
- **Household equivalised income <60% median** 12 more per 100



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