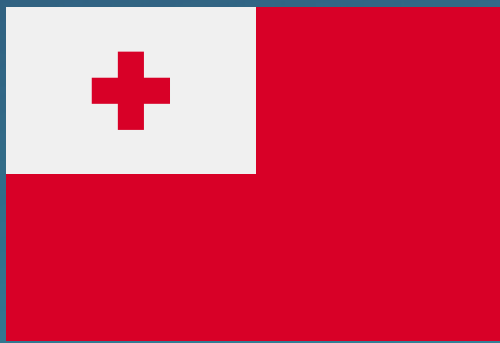




Tonga



Country report card - adults

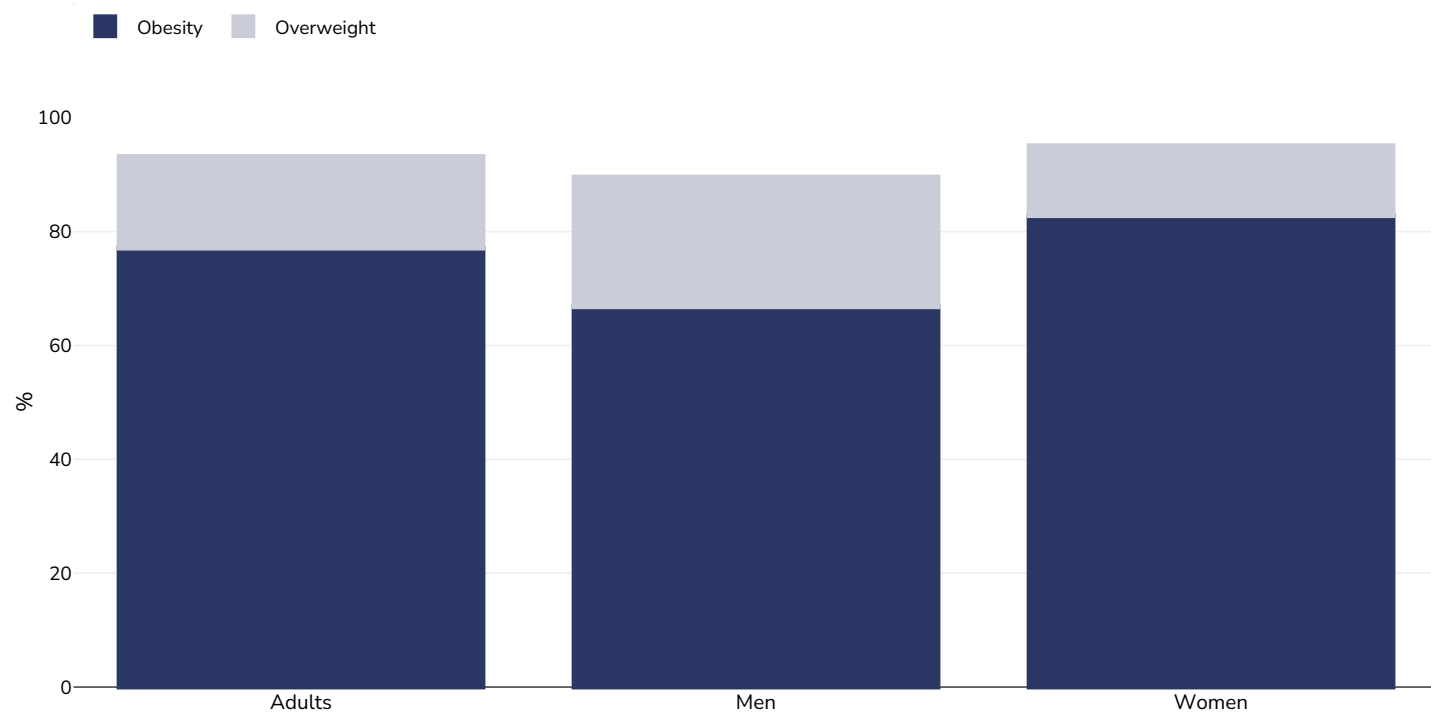
This report card contains the latest data available on the Global Obesity Observatory on overweight and obesity for adults. Where available, data on common and relevant obesity drivers and comorbidities are also presented.

View the latest version of this report on the Global Obesity Observatory at <https://data.worldobesity.org/country/tonga-216/>

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Obesity prevalence

Adults, 2017

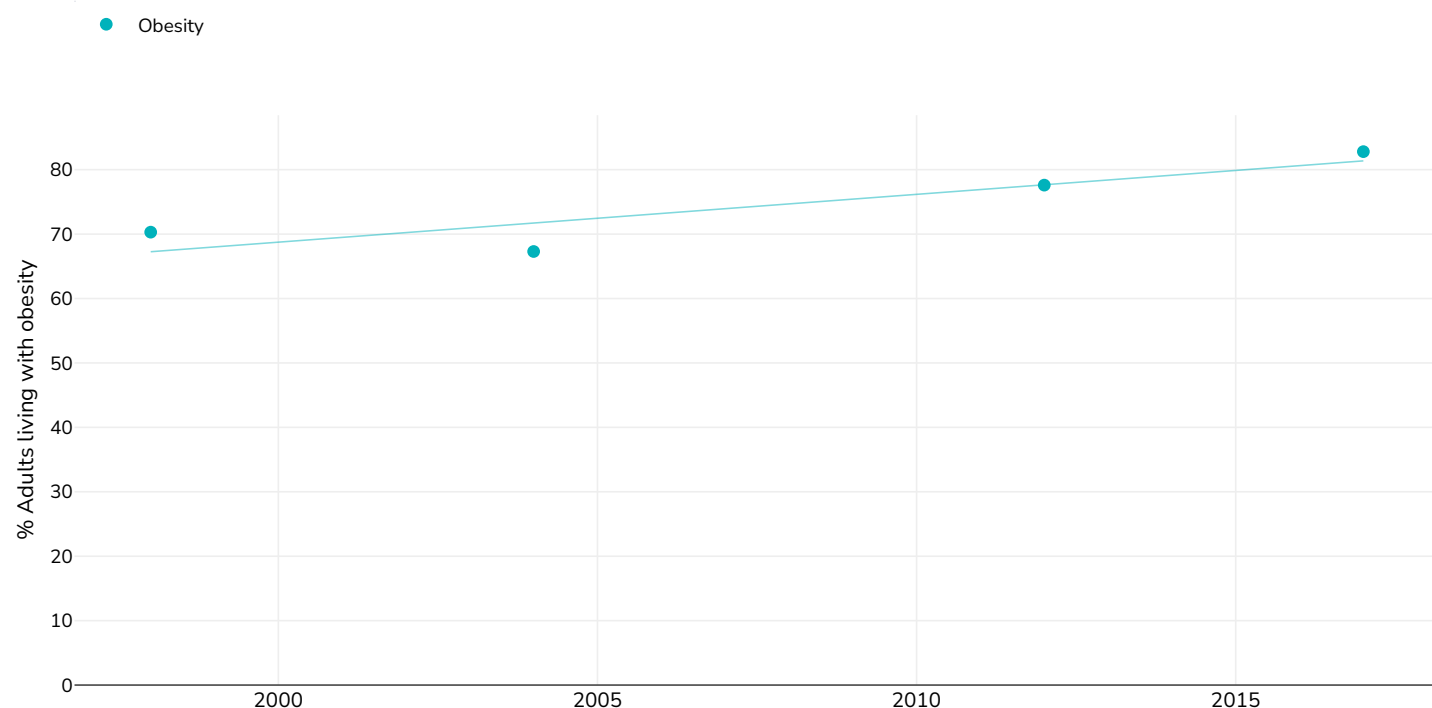


Survey type:	Measured
Age:	18-69
Sample size:	3858
Area covered:	National
References:	Tonga STEPS Survey 2017 https://extranet.who.int/ncdsmicrodata/index.php/catalog/713 (Last accessed 13.10.20)

Unless otherwise noted, overweight refers to a BMI between 25kg and 29.9kg/m², obesity refers to a BMI greater than 30kg/m².

% Adults living with obesity in Tonga 1998-2017

Women



Survey type:

Measured

References:

1998: Colaguir S, Colagiuri R, Na'ati S, Muimuiheata S, Hussain Z and Palau T. (2002). The prevalence of diabetes in the Kingdom of Tonga. Diabetes care, 25: 1378 - 1383.

2004: Tonga STEPS Survey 2004

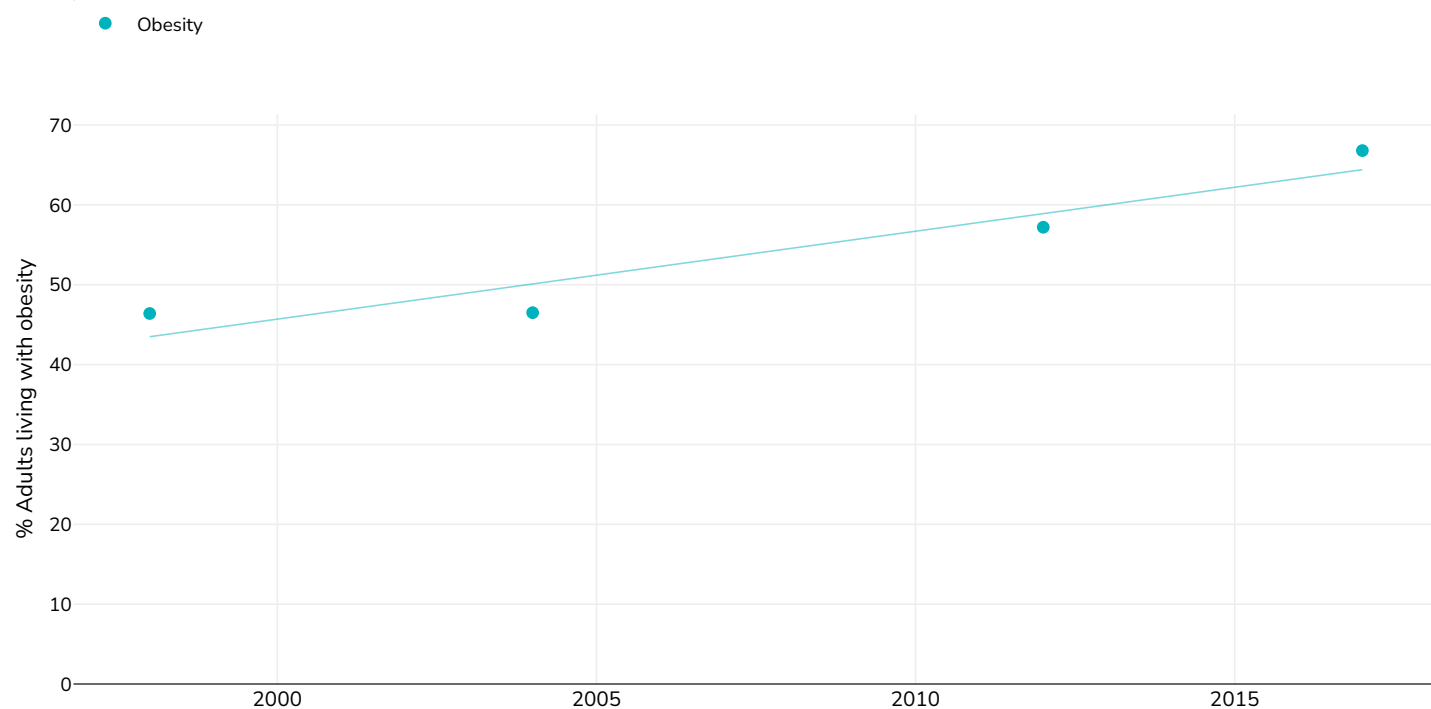
2012: STEPS Survey Tonga 2012 available at https://www.who.int/ncds/surveillance/steps/2012_Tonga_STEPSReport.pdf (last accessed 04.05.2020)

2017: Tonga STEPS Survey 2017 <https://extranet.who.int/ncdsmicrodata/index.php/catalog/713> (Last accessed 13.10.20)

Unless otherwise noted, overweight refers to a BMI between 25kg and 29.9kg/m², obesity refers to a BMI greater than 30kg/m².

Different methodologies may have been used to collect this data and so data from different surveys may not be strictly comparable. Please check with original data sources for methodologies used.

Men



Survey type: Measured

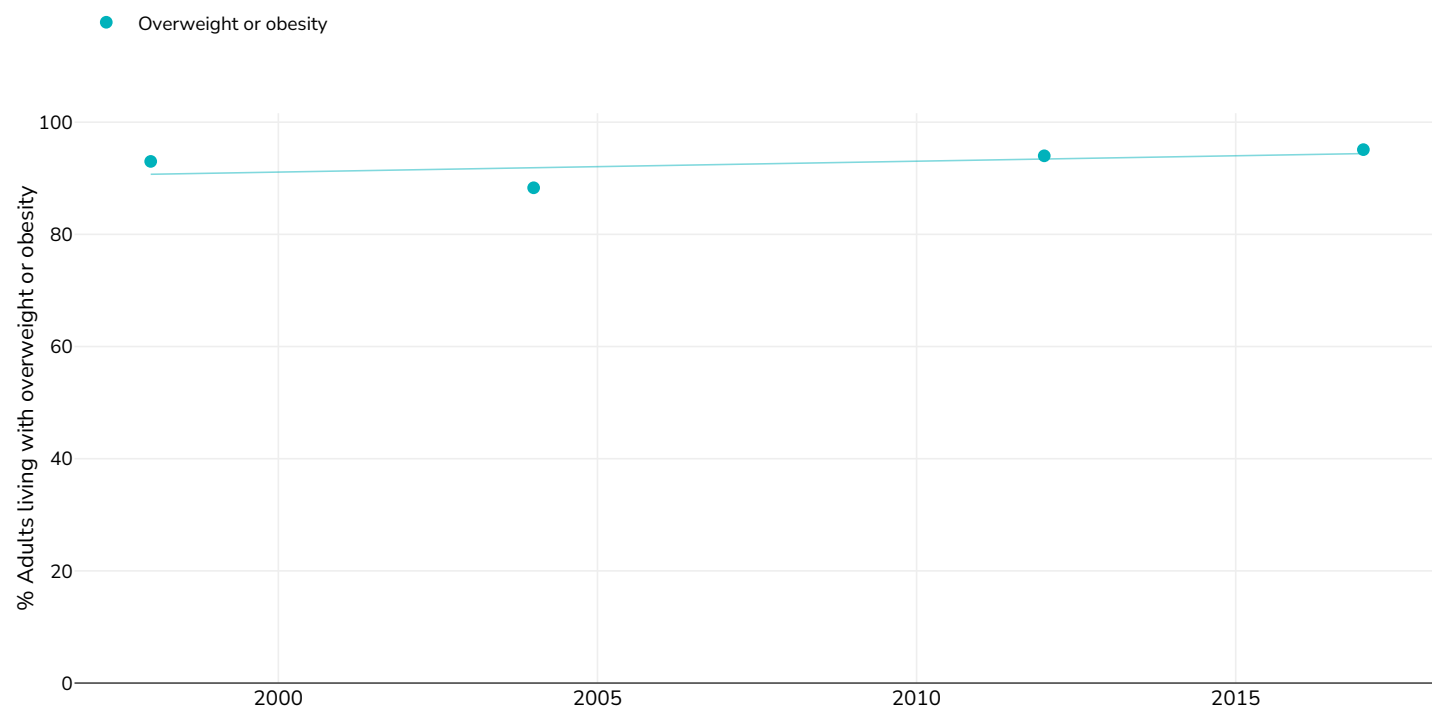
References: 1998: Colaguir S, Colagiuri R, Na'ati S, Muimuiheata S, Hussain Z and Palau T. (2002). The prevalence of diabetes in the Kingdom of Tonga. Diabetes care, 25: 1378 - 1383.
2004: Tonga STEPS Survey 2004
2012: STEPS Survey Tonga 2012 available at https://www.who.int/ncds/surveillance/steps/2012_Tonga_STEPSReport.pdf (last accessed 04.05.2020)
2017: Tonga STEPS Survey 2017 <https://extranet.who.int/ncdsmicrodata/index.php/catalog/713> (Last accessed 13.10.20)

Unless otherwise noted, overweight refers to a BMI between 25kg and 29.9kg/m², obesity refers to a BMI greater than 30kg/m².

Different methodologies may have been used to collect this data and so data from different surveys may not be strictly comparable. Please check with original data sources for methodologies used.

% Adults living with overweight or obesity in Tonga 1998-2017

Women



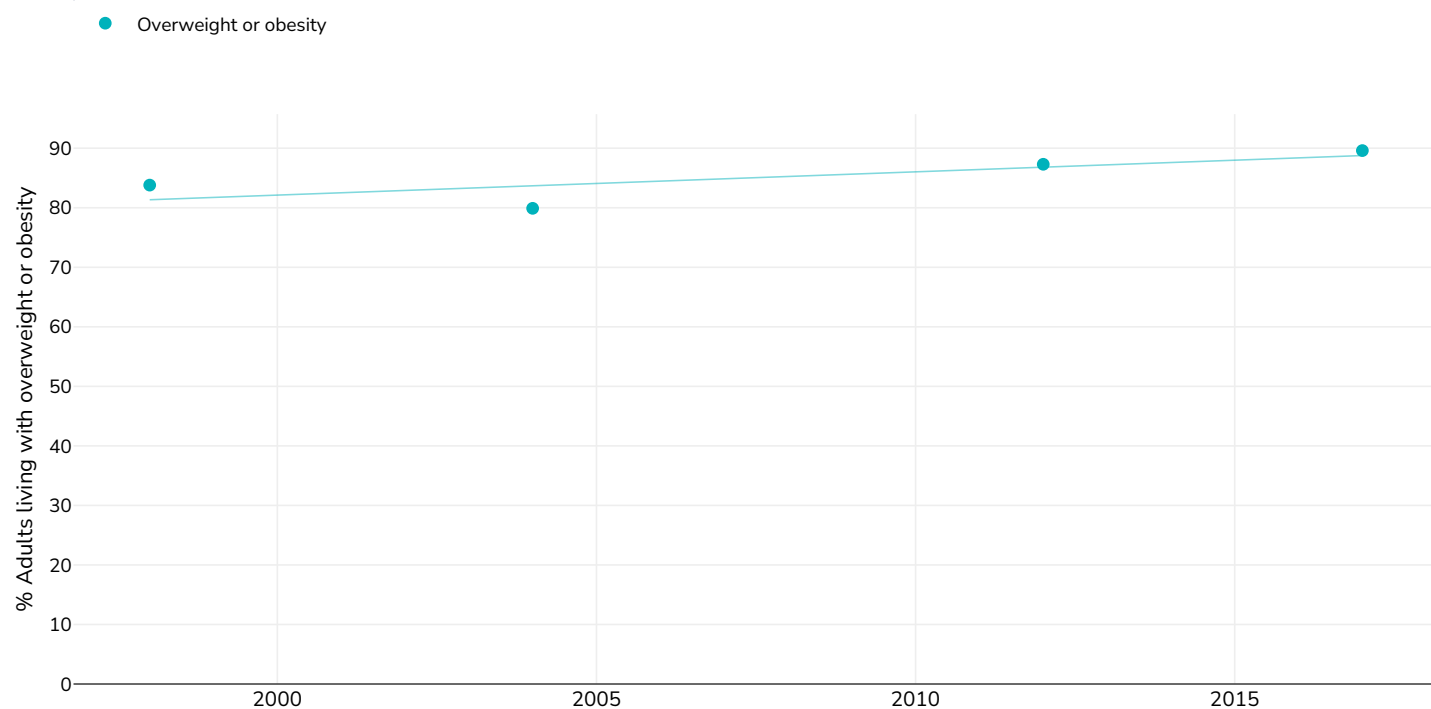
Survey type: Measured

References: 1998: Colaguir S, Colagiuri R, Na'ati S, Muimuiheata S, Hussain Z and Palau T. (2002). The prevalence of diabetes in the Kingdom of Tonga. Diabetes care, 25: 1378 - 1383.
2004: Tonga STEPS Survey 2004
2012: STEPS Survey Tonga 2012 available at https://www.who.int/ncds/surveillance/steps/2012_Tonga_STEPSReport.pdf (last accessed 04.05.2020)
2017: Tonga STEPS Survey 2017 <https://extranet.who.int/ncdsmicrodata/index.php/catalog/713> (Last accessed 13.10.20)

Unless otherwise noted, overweight refers to a BMI between 25kg and 29.9kg/m², obesity refers to a BMI greater than 30kg/m².

Different methodologies may have been used to collect this data and so data from different surveys may not be strictly comparable. Please check with original data sources for methodologies used.

Men



Survey type: Measured

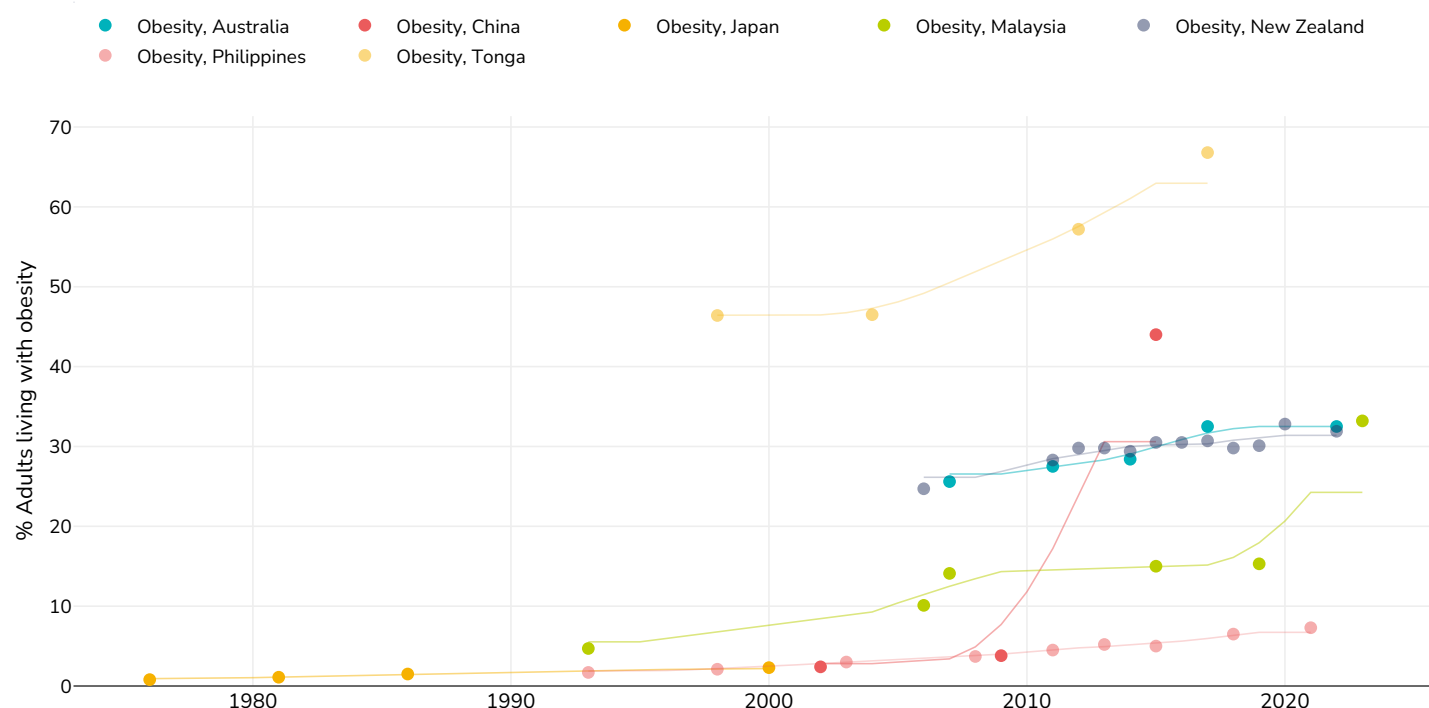
References: 1998: Colaguir S, Colagiuri R, Na'ati S, Muimuiheata S, Hussain Z and Palau T. (2002). The prevalence of diabetes in the Kingdom of Tonga. Diabetes care, 25: 1378 - 1383.
2004: Tonga STEPS Survey 2004
2012: STEPS Survey Tonga 2012 available at https://www.who.int/ncds/surveillance/steps/2012_Tonga_STEPSReport.pdf (last accessed 04.05.2020)
2017: Tonga STEPS Survey 2017 <https://extranet.who.int/ncdsmicrodata/index.php/catalog/713> (Last accessed 13.10.20)

Unless otherwise noted, overweight refers to a BMI between 25kg and 29.9kg/m², obesity refers to a BMI greater than 30kg/m².

Different methodologies may have been used to collect this data and so data from different surveys may not be strictly comparable. Please check with original data sources for methodologies used.

**% Adults living with obesity in selected countries in the Asia/Oceania
Region 1975-2019, selected countries**

Men

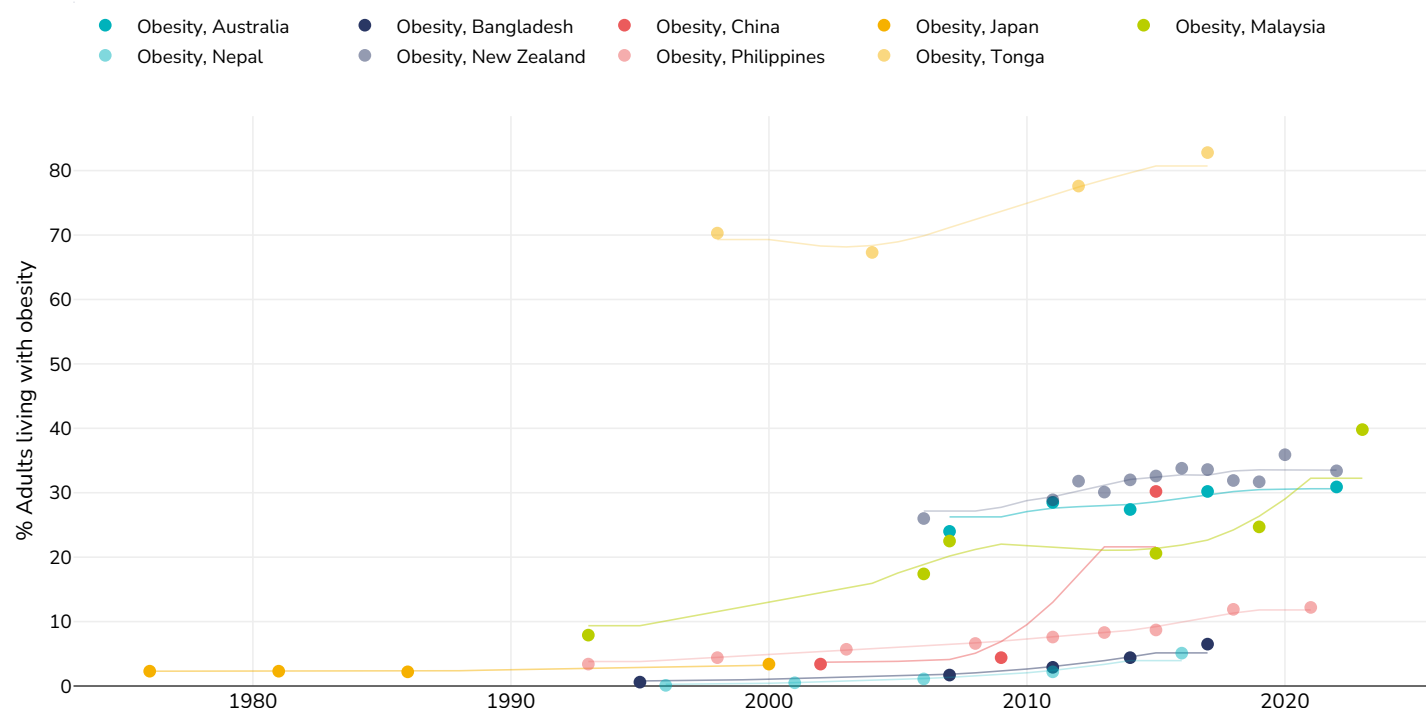


References:

- 1976, 1981, 1986: Yoshiike N, Seino F, Tajima S, Arai Y, Kawano M, Furuhashi T, Inoue S. Twenty-year changes in the prevalence of overweight in Japanese adults: The National Nutrition Survey 1976-95. *Obesity Reviews* 2002;3:183-190
- 1993, 2005, 2013: Chang HC, Yang HC, Chang HY, et al. Morbid obesity in Taiwan: Prevalence, trends, associated social demographics, and lifestyle factors. *PLoS One*. 2017;12(2):e0169577. Published 2017 Feb 2. doi:10.1371/journal.pone.0169577
- 1995, 1996: Martorell R, Khan LK, Hughes ML, Grummer Strawn LM. Obesity in women from developing countries. *EJCN* (2000) 54:247-252
- 1998: Colaguir S, Colagiuri R, Na'ati S, Muimuiheata S, Hussain Z and Palau T. (2002). The prevalence of diabetes in the Kingdom of Tonga. *Diabetes care*, 25: 1378 - 1383.
- 2000: Asia Pacific Cohort Studies Collaboration. The burden of overweight and obesity in the Asia-Pacific region. *Obesity Reviews* 2007;8:191-196.
- 2001: SCN (2004). 5th Report on the World Nutrition Situation. Nutrition for Improved Development Outcomes. Appendix 11
- 2002: Report of the 2002 China National Nutrition and Health Survey. 2004. (In Chinese). Chinese Ministry of Public Health (CMPH).
- 2003: <http://www.fnri.dost.gov.ph/files/fnri%20files/nns/factsandfigures2003/anthropometric.pdf> (last accessed June 14th 2011)
- 2004: Tonga STEPS Survey 2004
- 2006: Gerritsen S, Stefanogiannis N, Galloway Y, Devlin M, Templaton R and Yeh L. A portrait of health: key results of the 2006/07 New Zealand Health Survey.
- 2007: Australian Bureau of Statistics (ABS). National Health Survey: Summary of results. Canberra, Australia, ABS, 2009. WHO Global InfoBase reference:102910
- 2008: Food and Nutrition Research Institute-Department of Science and Technology (FNRI-DOST). 2010. Philippine Nutrition Facts and Figures 2008. DOST Complex, FNRI Bldg., Bicutan, Taguig City, Metro Manila, Philippines.
- 2009: Yan, S., Li, J., Li, S., Zhang, B., Du, S., Gordon-Larsen, P., Adair, L. and Popkin, B. (2012), The expanding burden of cardiometabolic risk in China: the China Health and Nutrition Survey. *Obesity Reviews*. doi: 10.1111/j.1467-789X.2012.01016.x
- 2011: National Institute of Population Research and Training - NIPORT/Bangladesh, Mitra and Associates/Bangladesh, and ICF International. 2013. Bangladesh Demographic and Health Survey 2011. Dhaka, Bangladesh: NIPORT, Mitra and Associates, and ICF International.
- 2012: New Zealand Health Survey. <https://www.health.govt.nz/publication/annual-update-key-results-2018-19-new-zealand-health-survey> (last accessed 14.07.20)
- 2014: National Institute of Population Research and Training - NIPORT/Bangladesh, Mitra and Associates, and ICF International. 2016. Bangladesh Demographic and Health Survey 2014. Dhaka, Bangladesh: NIPORT, Mitra and Associates, and ICF International. <http://www.dhsprogram.com/publications/publication-FR311-DHS-Final-Reports.cfm> (last accessed 11th April 2016)
- 2015: Institute for Public Health (IPH) 2015. National Health and Morbidity Survey 2015 (NHMS 2015). Vol. II: Non-Communicable Diseases, Risk Factors & Other Health Problems; 2015.
- 2016: Ministry of Health - MOH/Nepal, New ERA/Nepal, and ICF. 2017. Nepal Demographic and Health Survey 2016. Kathmandu, Nepal: MOH/Nepal, New ERA/Nepal, and ICF.

Different methodologies may have been used to collect this data and so data from different surveys may not be strictly comparable. Please check with original data sources for methodologies used.

Women



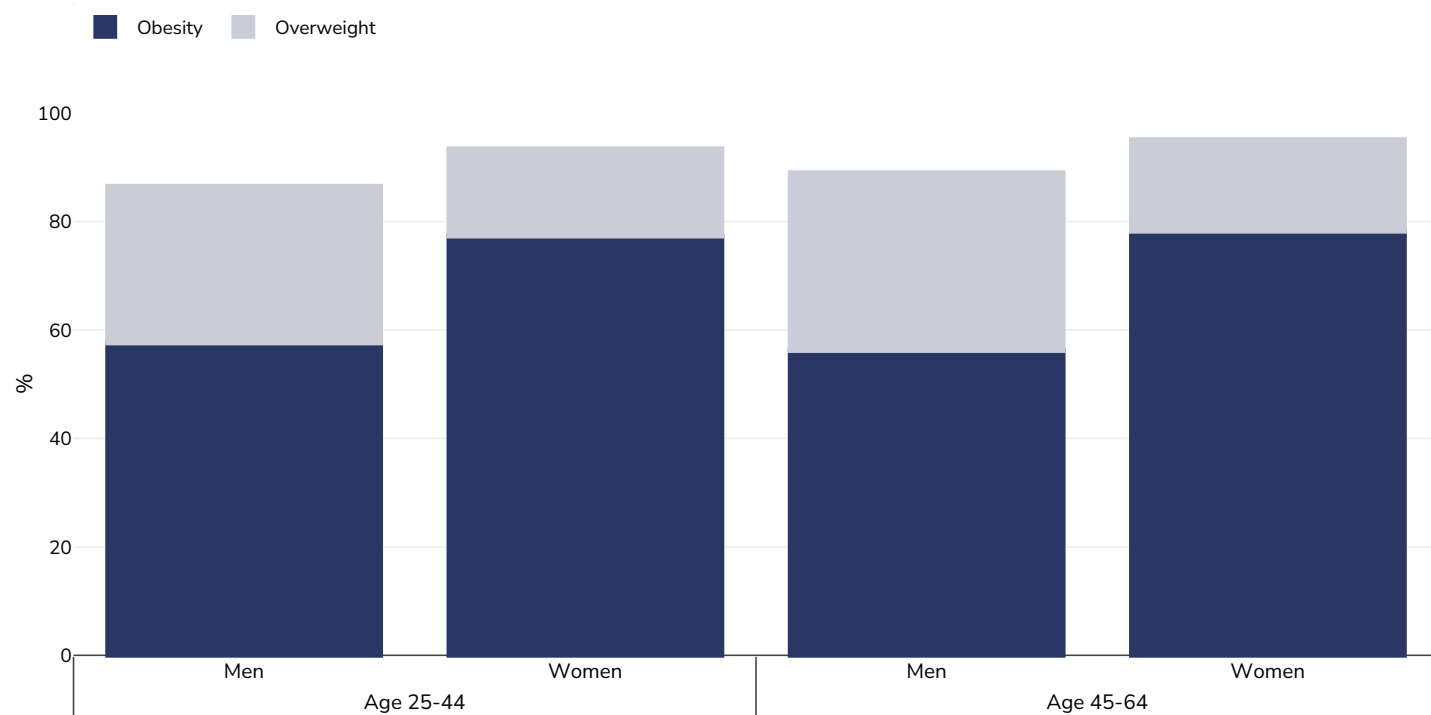
References:

- 1976, 1981, 1986: Yoshiike N, Seino F, Tajima S, Arai Y, Kawano M, Furuhashi T, Inoue S. Twenty-year changes in the prevalence of overweight in Japanese adults: The National Nutrition Survey 1976-95. *Obesity Reviews* 2002;3:183-190
- 1993, 2005, 2013: Chang HC, Yang HC, Chang HY, et al. Morbid obesity in Taiwan: Prevalence, trends, associated social demographics, and lifestyle factors. *PLoS One*. 2017;12(2):e0169577. Published 2017 Feb 2. doi:10.1371/journal.pone.0169577
- 1995, 1996: Martorell R, Khan LK, Hughes ML, Grummer Strawn LM. Obesity in women from developing countries. *EJCN* (2000) 54:247-252
- 1998: Colaguir S, Colagiuri R, Na'ati S, Muimuiheata S, Hussain Z and Palau T. (2002). The prevalence of diabetes in the Kingdom of Tonga. *Diabetes care*, 25: 1378 - 1383.
- 2000: Asia Pacific Cohort Studies Collaboration. The burden of overweight and obesity in the Asia-Pacific region. *Obesity Reviews* 2007;8:191-196.
- 2001: SCN (2004). 5th Report on the World Nutrition Situation. Nutrition for Improved Development Outcomes. Appendix 11
- 2002: Report of the 2002 China National Nutrition and Health Survey. 2004. (In Chinese). Chinese Ministry of Public Health (CMPH).
- 2003: <http://www.fnri.dost.gov.ph/files/fnri%20files/nns/factsandfigures2003/anthropometric.pdf> (last accessed June 14th 2011)
- 2004: Tonga STEPS Survey 2004
- 2006: Gerritsen S, Stefanogiannis N, Galloway Y, Devlin M, Templaton R and Yeh L. A portrait of health: key results of the 2006/07 New Zealand Health Survey.
- 2007: Australian Bureau of Statistics (ABS). National Health Survey: Summary of results. Canberra, Australia, ABS, 2009. WHO Global InfoBase reference:102910
- 2008: Food and Nutrition Research Institute-Department of Science and Technology (FNRI-DOST). 2010. Philippine Nutrition Facts and Figures 2008. DOST Complex, FNRI Bldg., Bicutan, Taguig City, Metro Manila, Philippines.
- 2009: Yan, S., Li, J., Li, S., Zhang, B., Du, S., Gordon-Larsen, P., Adair, L. and Popkin, B. (2012), The expanding burden of cardiometabolic risk in China: the China Health and Nutrition Survey. *Obesity Reviews*. doi: 10.1111/j.1467-789X.2012.01016.x
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- 2012: New Zealand Health Survey. <https://www.health.govt.nz/publication/annual-update-key-results-2018-19-new-zealand-health-survey> (last accessed 14.07.20)
- 2014: National Institute of Population Research and Training - NIPORT/Bangladesh, Mitra and Associates, and ICF International. 2016. Bangladesh Demographic and Health Survey 2014. Dhaka, Bangladesh: NIPORT, Mitra and Associates, and ICF International. <http://www.dhsprogram.com/publications/publication-FR311-DHS-Final-Reports.cfm> (last accessed 11th April 2016)
- 2015: Institute for Public Health (IPH) 2015. National Health and Morbidity Survey 2015 (NHMS 2015). Vol. II: Non-Communicable Diseases, Risk Factors & Other Health Problems; 2015.
- 2016: Ministry of Health - MOH/Nepal, New ERA/Nepal, and ICF. 2017. Nepal Demographic and Health Survey 2016. Kathmandu, Nepal: MOH/Nepal, New ERA/Nepal, and ICF.

Different methodologies may have been used to collect this data and so data from different surveys may not be strictly comparable. Please check with original data sources for methodologies used.

Overweight/obesity by age

Adults, 2012

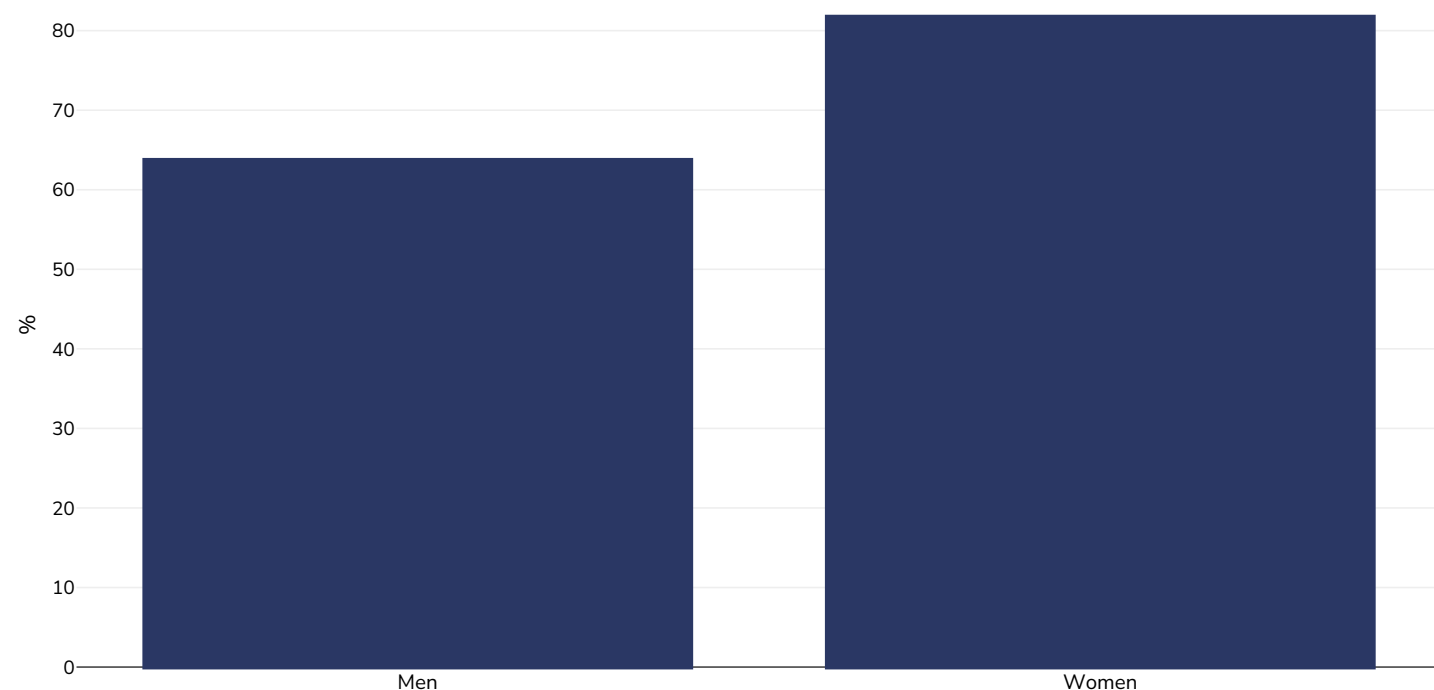


Survey type:	Measured
Sample size:	2599
Area covered:	National
References:	STEPS Survey Tonga 2012 available at https://www.who.int/ncds/surveillance/steps/2012_Tonga_STEPSReport.pdf (last accessed 04.05.2020)
Notes:	STEPS

Unless otherwise noted, overweight refers to a BMI between 25kg and 29.9kg/m², obesity refers to a BMI greater than 30kg/m².

Double burden of underweight & overweight

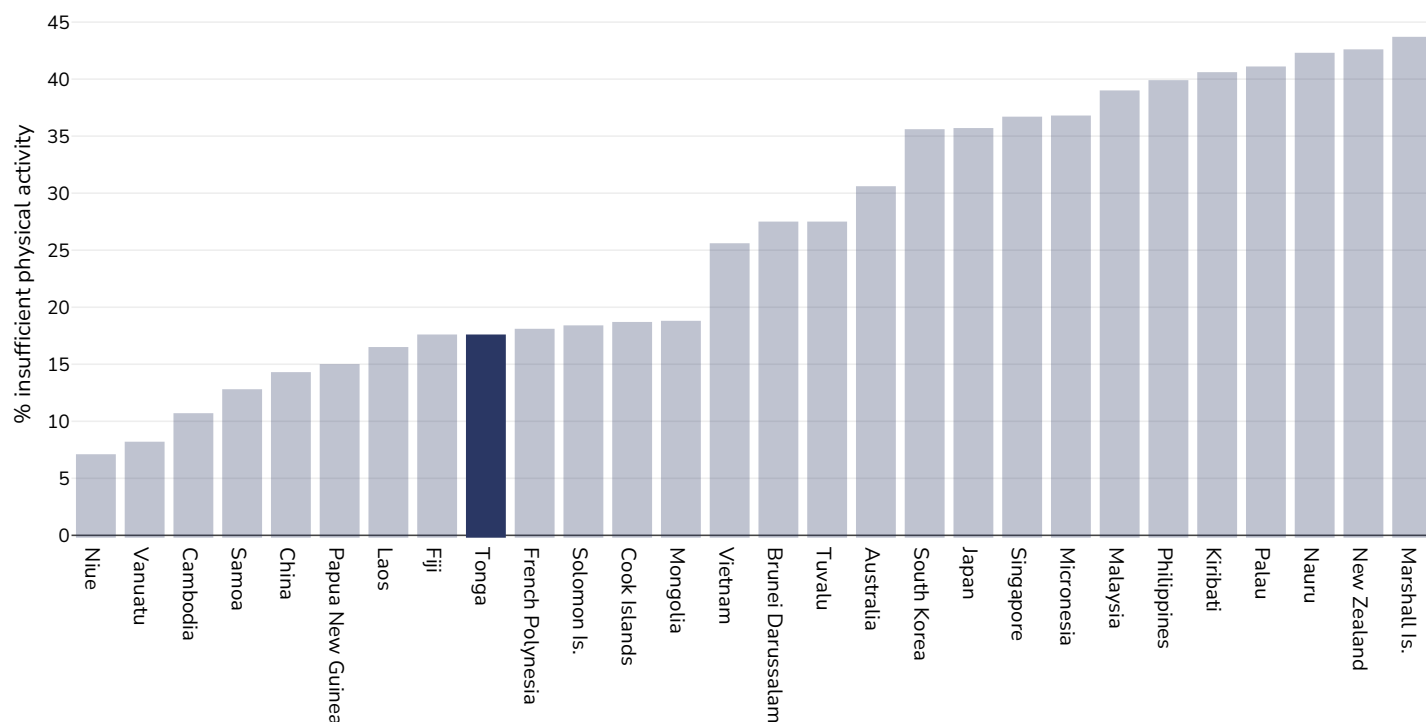
Adults, 2022



Survey type:	Measured
Age:	20+
References:	NCD Risk Factor Collaboration (NCD-RisC). Worldwide trends in underweight and obesity from 1990 to 2022: a pooled analysis of 3663 population representative studies with 222 million children, adolescents, and adults. Lancet 2024; published online Feb 29. https://doi.org/10.1016/S0140-6736(23)02750-2 .
Notes:	Age Standardised estimates
Definitions:	Combined prevalence of BMI<18.5 kg/m ² and BMI≥30 kg/m ² (double burden of underweight and obesity)

Insufficient physical activity

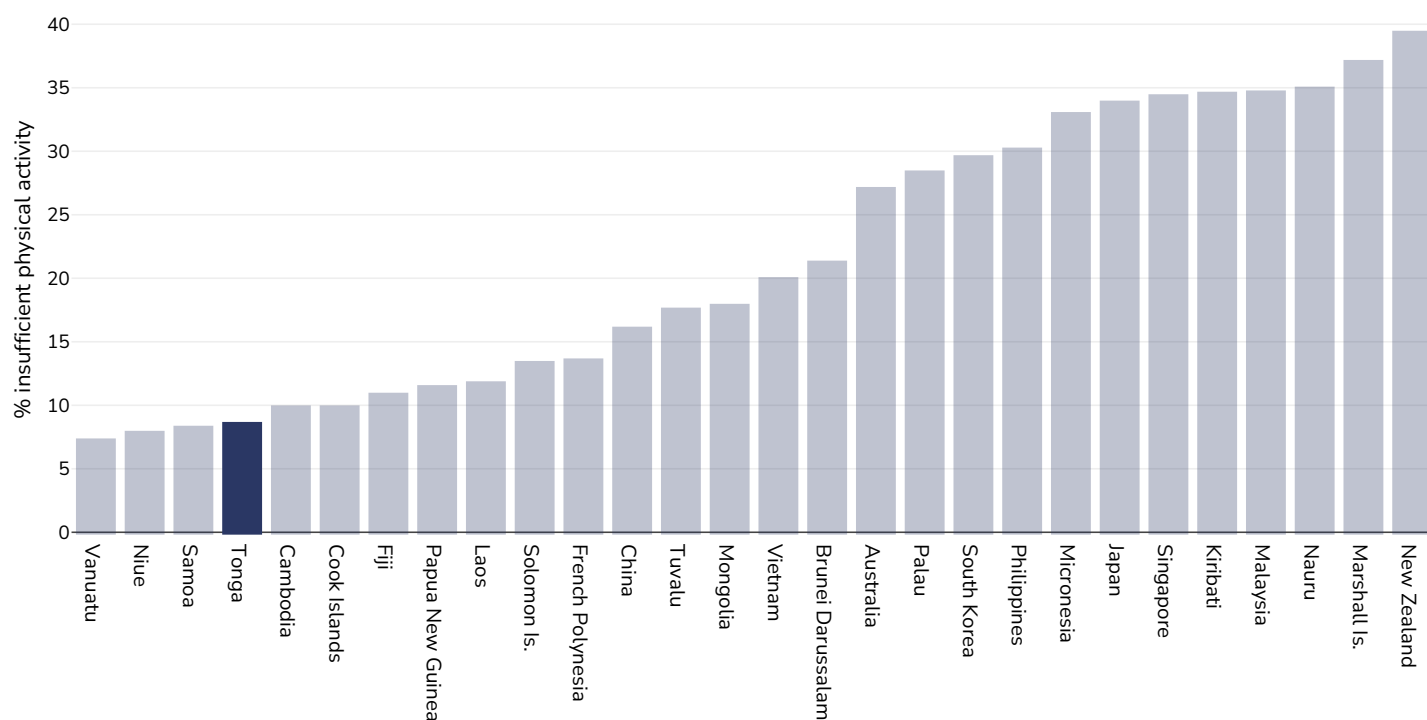
Adults, 2016



References:

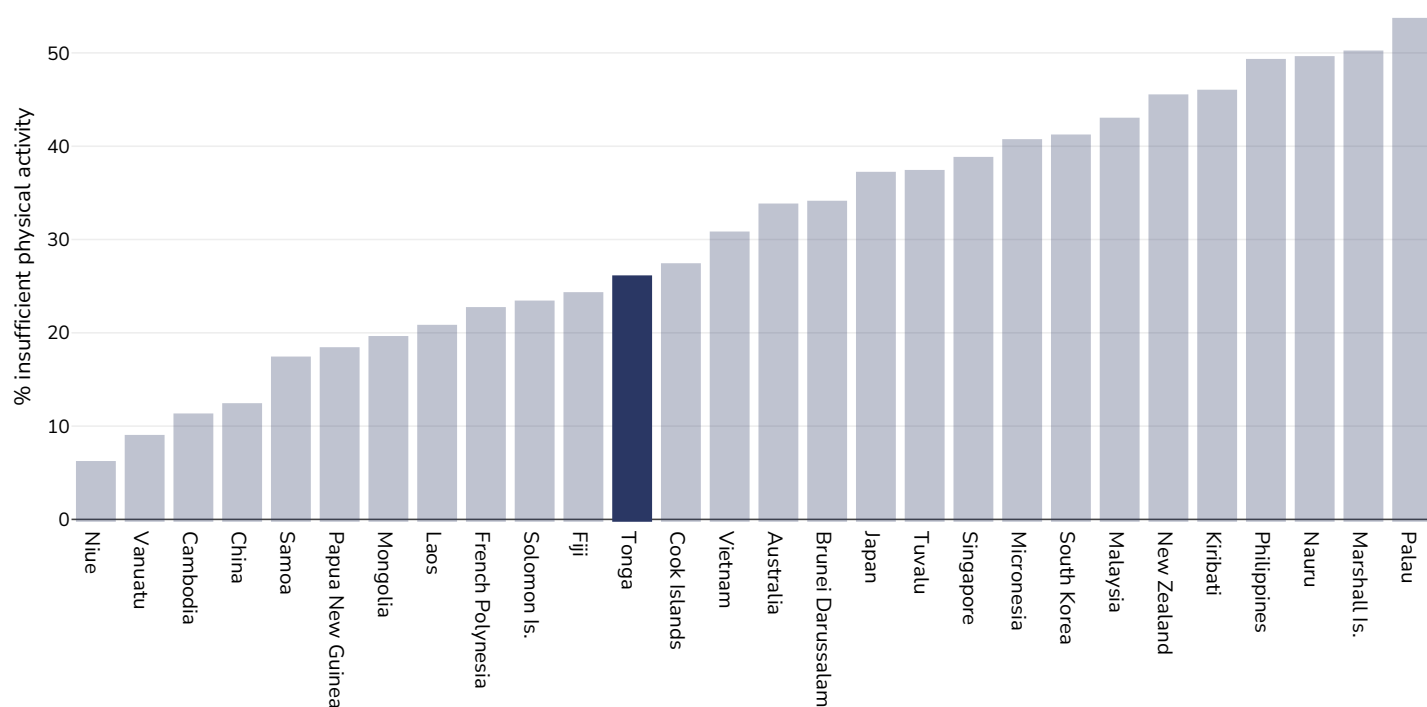
Guthold R, Stevens GA, Riley LM, Bull FC. Worldwide trends in insufficient physical activity from 2001 to 2016: a pooled analysis of 358 population-based surveys with 1.9 million participants. Lancet 2018 [http://dx.doi.org/10.1016/S2214-109X\(18\)30357-7](http://dx.doi.org/10.1016/S2214-109X(18)30357-7)

Men, 2016



References: Guthold R, Stevens GA, Riley LM, Bull FC. Worldwide trends in insufficient physical activity from 2001 to 2016: a pooled analysis of 358 population-based surveys with 1.9 million participants. Lancet 2018 [http://dx.doi.org/10.1016/S2214-109X\(18\)30357-7](http://dx.doi.org/10.1016/S2214-109X(18)30357-7)

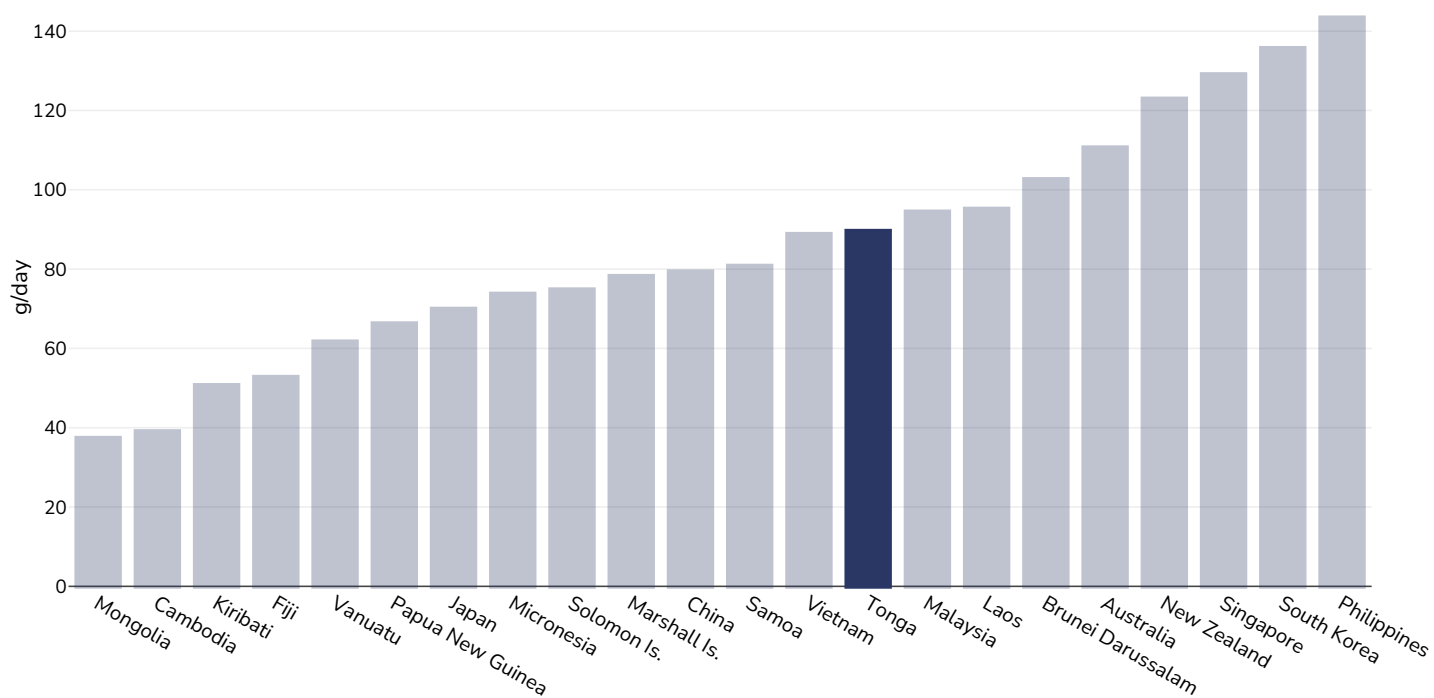
Women, 2016



References: Guthold R, Stevens GA, Riley LM, Bull FC. Worldwide trends in insufficient physical activity from 2001 to 2016: a pooled analysis of 358 population-based surveys with 1.9 million participants. Lancet 2018 [http://dx.doi.org/10.1016/S2214-109X\(18\)30357-7](http://dx.doi.org/10.1016/S2214-109X(18)30357-7)

Estimated per capita fruit intake

Adults, 2017



Survey type: Measured

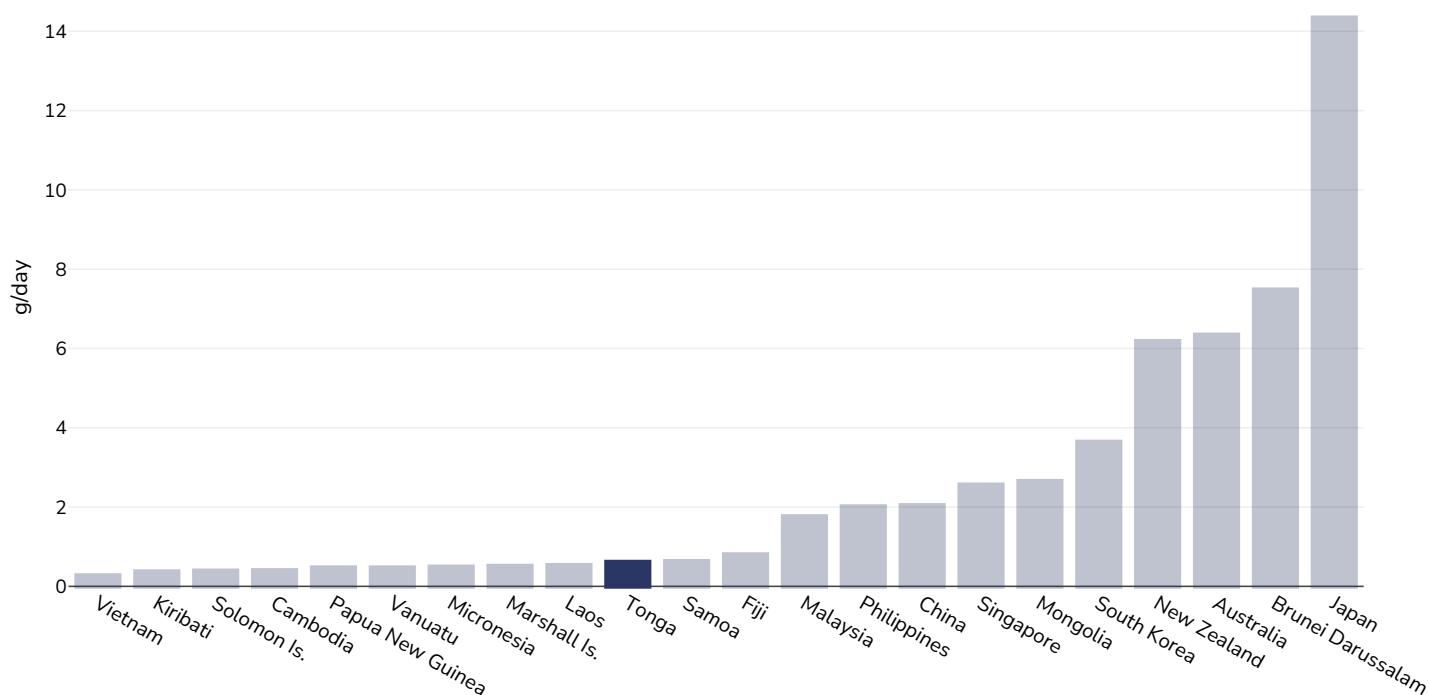
Age: 25+

References: Global Burden of Disease, the Institute for Health Metrics and Evaluation <http://ghdx.healthdata.org/>

Definitions: Estimated per-capita fruit intake (g/day)

Estimated per-capita processed meat intake

Adults, 2017



Survey type: Measured

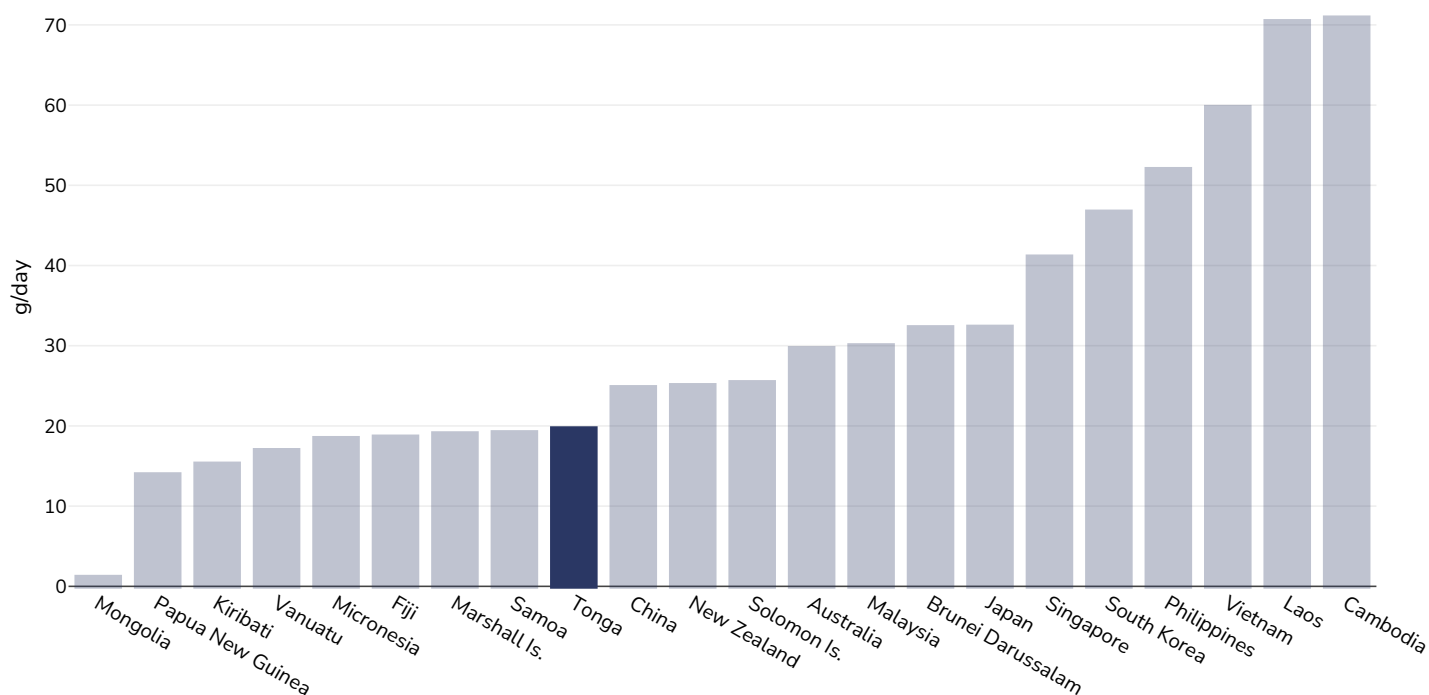
Age: 25+

References: Global Burden of Disease, the Institute for Health Metrics and Evaluation <http://ghdx.healthdata.org/>

Definitions: Estimated per-capita processed meat intake (g per day)

Estimated per capita whole grains intake

Adults, 2017



Survey type: Measured

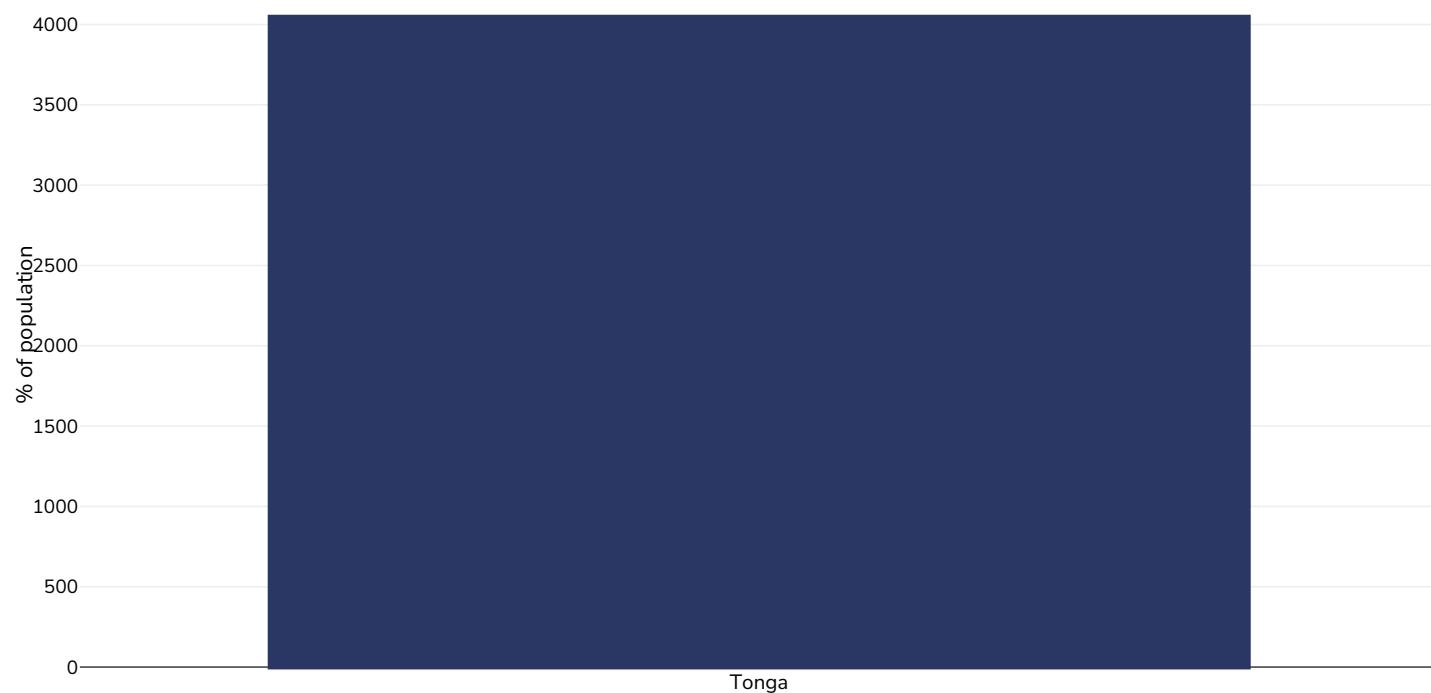
Age: 25+

References: Global Burden of Disease, the Institute for Health Metrics and Evaluation <http://ghdx.healthdata.org/>

Definitions: Estimated per-capita whole grains intake (g/day)

Mental health - depression disorders

Adults, 2021



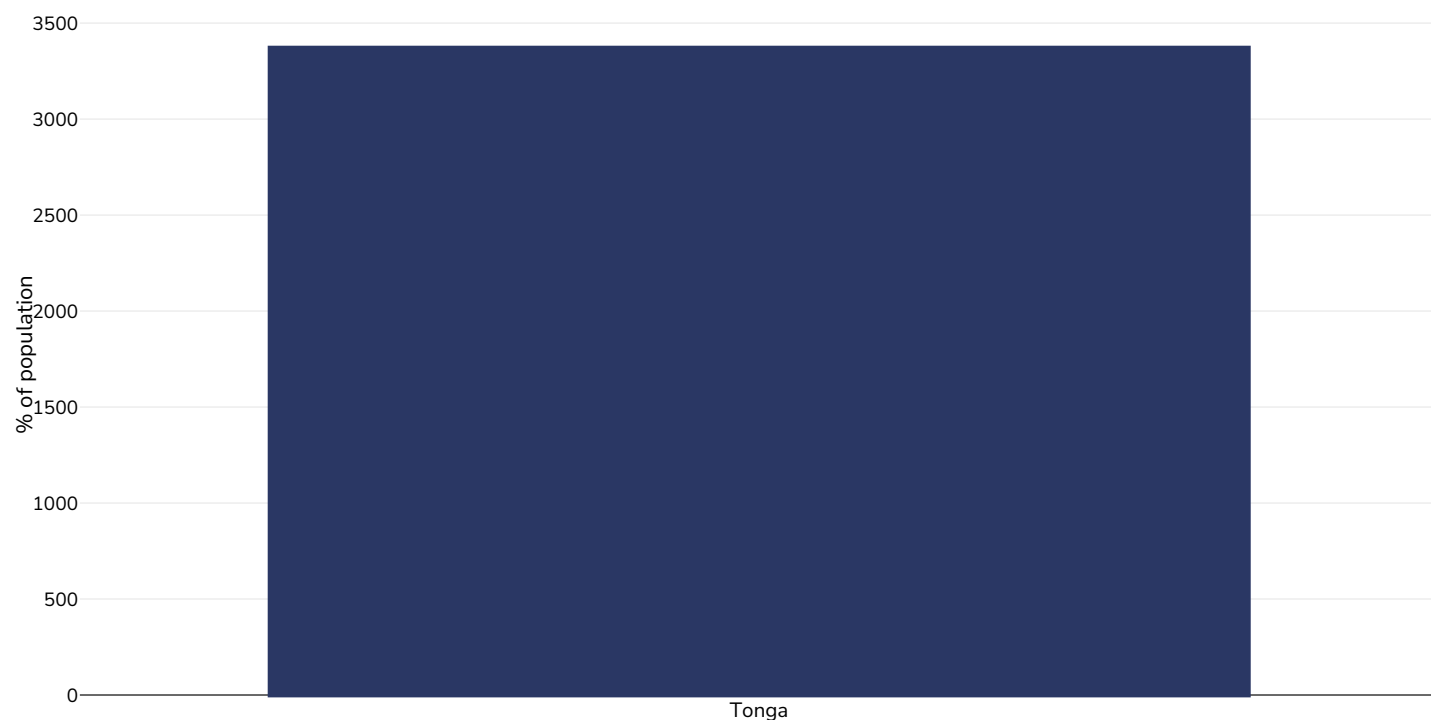
Age: 20+

Area covered: National

References: Institute for Health Metrics and Evaluation (IHME). GBD Compare Data Visualization. Global Burden of Disease (GBD) Study 2021. Seattle, WA: IHME, University of Washington, 2023. Available from <http://vizhub.healthdata.org/gbd-compare>. (Last accessed 23.04.25)

Definitions: Number living with depression per 100,000 population (adults 20+ years)

Men, 2021



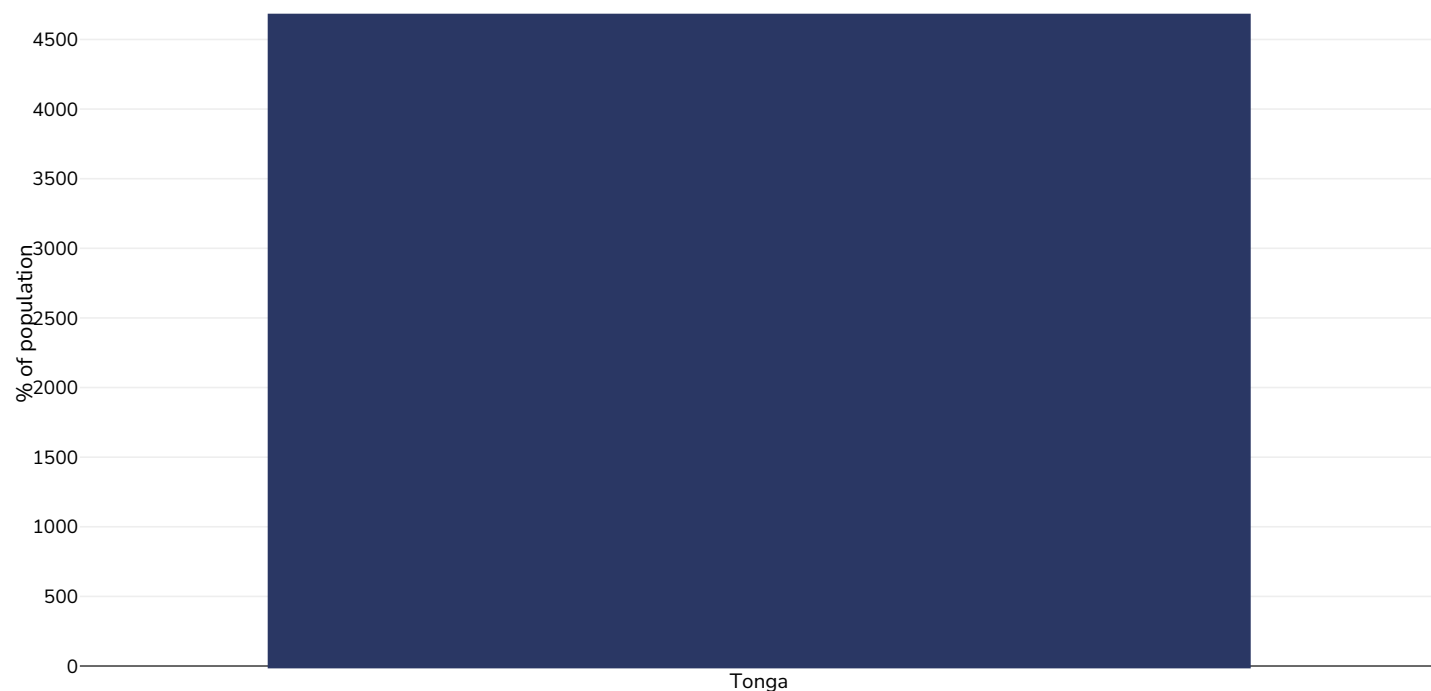
Age: 20+

Area covered: National

References: Institute for Health Metrics and Evaluation (IHME). GBD Compare Data Visualization. Global Burden of Disease (GBD) Study 2021. Seattle, WA: IHME, University of Washington, 2023. Available from <http://vizhub.healthdata.org/gbd-compare>. (Last accessed 23.04.25)

Definitions: Number living with depression per 100,000 population (adults 20+ years)

Women, 2021



Age: 20+

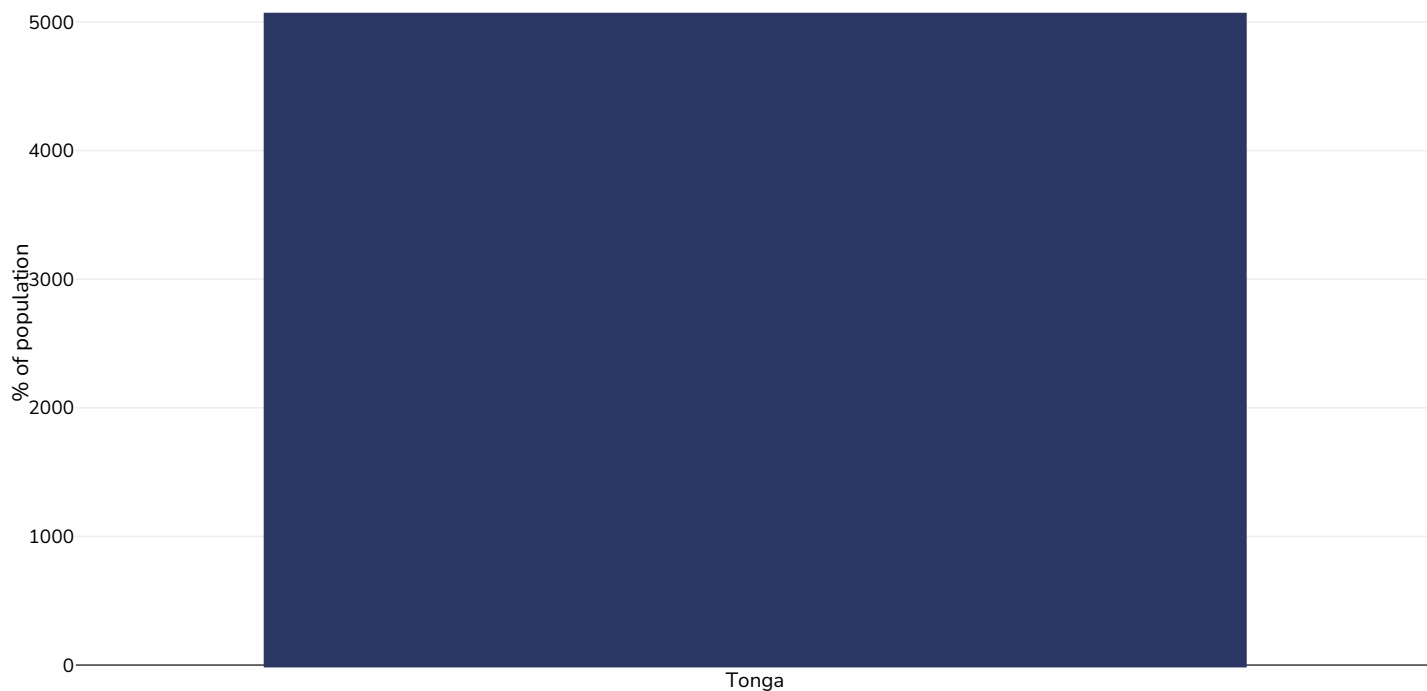
Area covered: National

References: Institute for Health Metrics and Evaluation (IHME). GBD Compare Data Visualization. Global Burden of Disease (GBD) Study 2021. Seattle, WA: IHME, University of Washington, 2023. Available from <http://vizhub.healthdata.org/gbd-compare>. (Last accessed 23.04.25)

Definitions: Number living with depression per 100,000 population (adults 20+ years)

Mental health - anxiety disorders

Adults, 2021

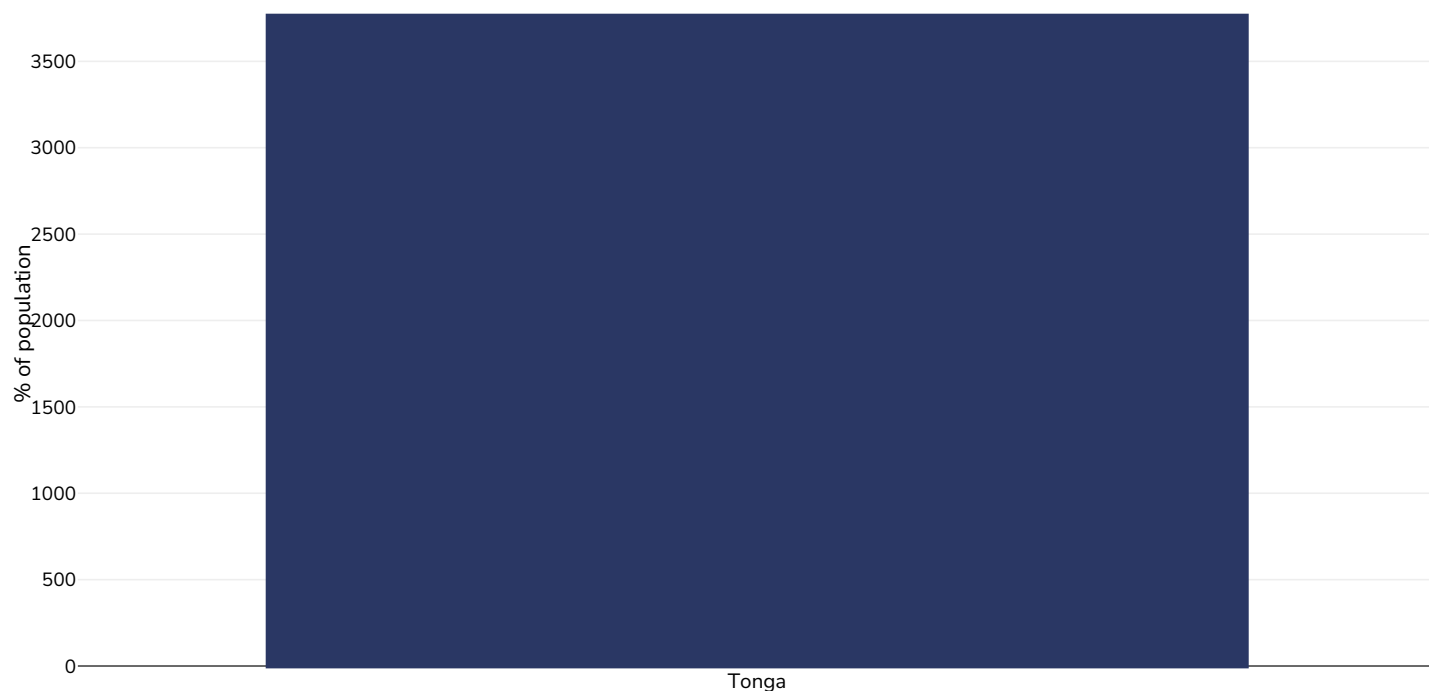


Age: 20+

References: Institute for Health Metrics and Evaluation (IHME). GBD Compare Data Visualization. Global Burden of Disease (GBD) Study 2021. Seattle, WA: IHME, University of Washington, 2023. Available from <http://vizhub.healthdata.org/gbd-compare>. (Last accessed 23.04.25).

Definitions: Number living with anxiety per 100,000 population

Men, 2021

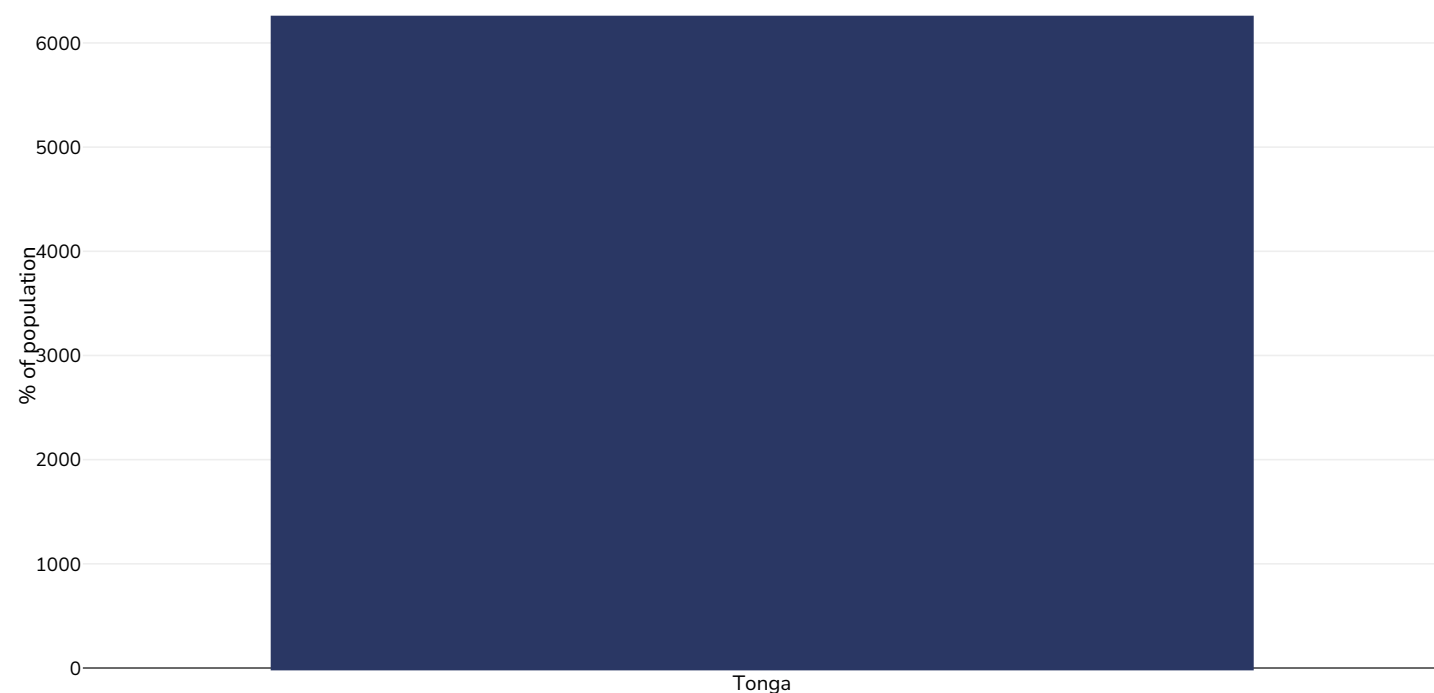


Age: 20+

References: Institute for Health Metrics and Evaluation (IHME). GBD Compare Data Visualization. Global Burden of Disease (GBD) Study 2021. Seattle, WA: IHME, University of Washington, 2023. Available from <http://vizhub.healthdata.org/gbd-compare>. (Last accessed 23.04.25).

Definitions: Number living with anxiety per 100,000 population

Women, 2021



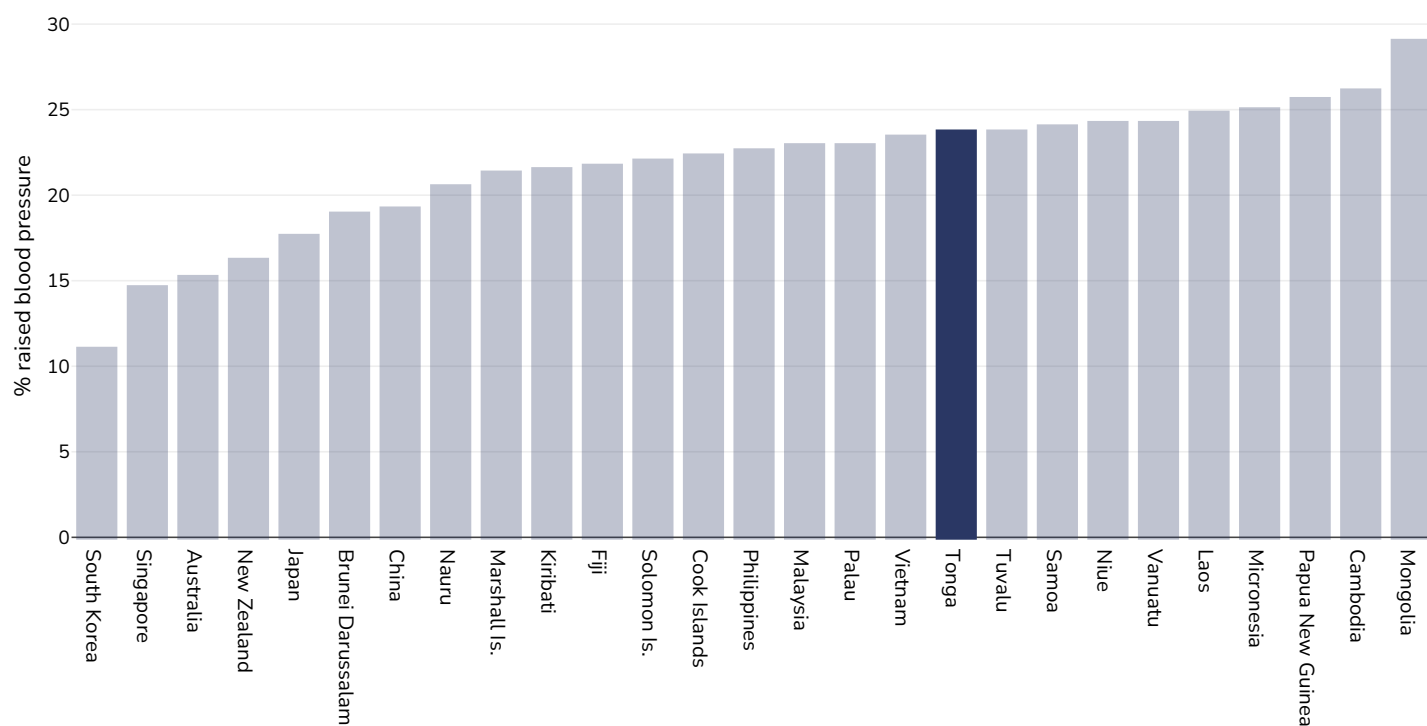
Age: 20+

References: Institute for Health Metrics and Evaluation (IHME). GBD Compare Data Visualization. Global Burden of Disease (GBD) Study 2021. Seattle, WA: IHME, University of Washington, 2023. Available from <http://vizhub.healthdata.org/gbd-compare>. (Last accessed 23.04.25).

Definitions: Number living with anxiety per 100,000 population

Raised blood pressure

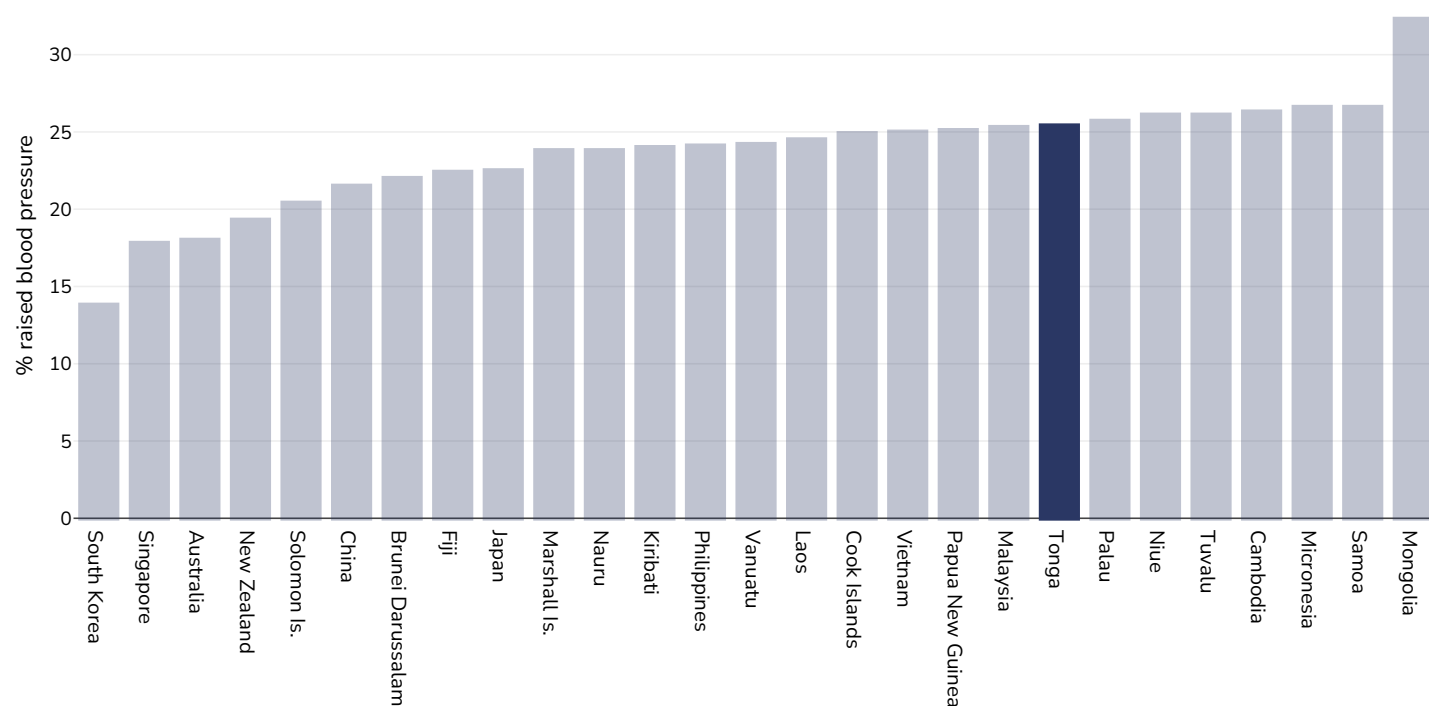
Adults, 2015



References: Global Health Observatory data repository, World Health Organisation, <http://apps.who.int/gho/data/node.main.A875?lang=en>

Definitions: Age Standardised estimated % Raised blood pressure 2015 (SBP $\geq$ 140 OR DBP $\geq$ 90).

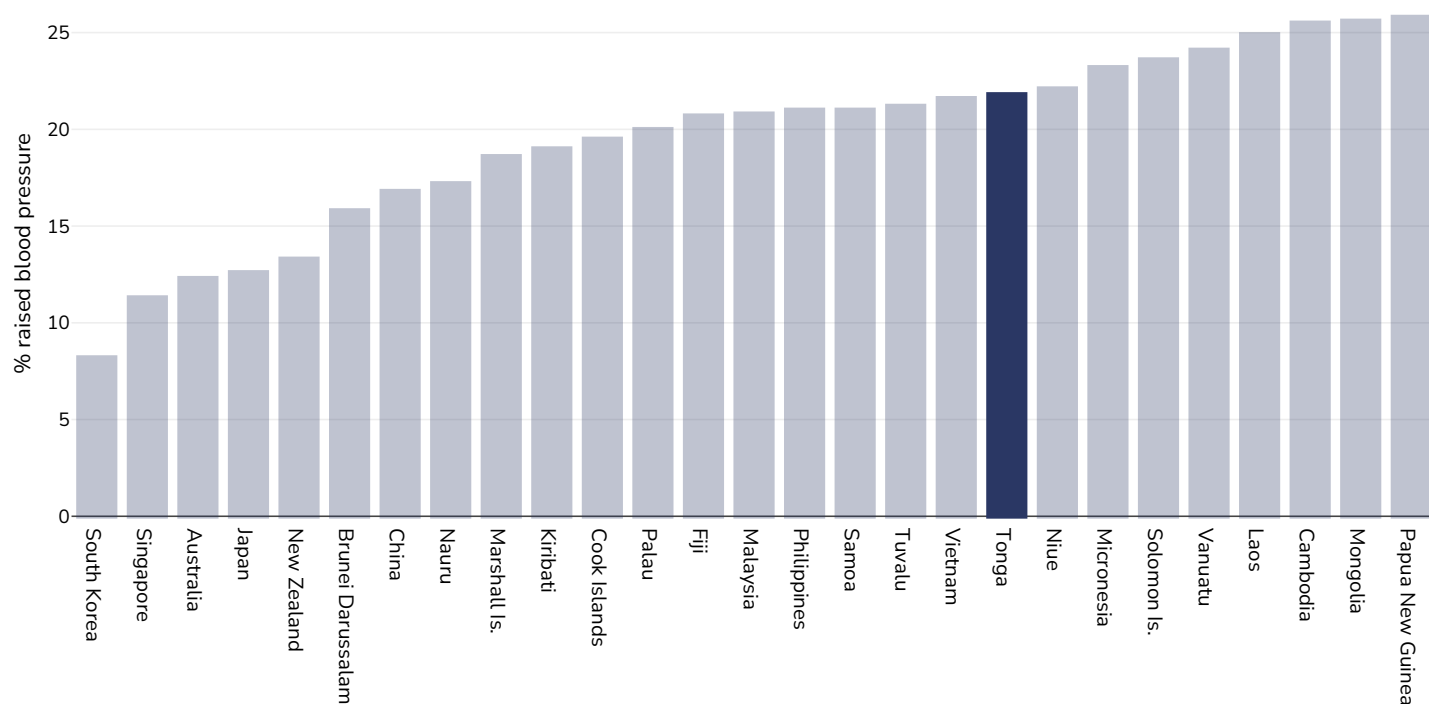
Men, 2015



References: Global Health Observatory data repository, World Health Organisation, <http://apps.who.int/gho/data/node.main.A875?lang=en>

Definitions: Age Standardised estimated % Raised blood pressure 2015 (SBP $\geq$ 140 OR DBP $\geq$ 90).

Women, 2015

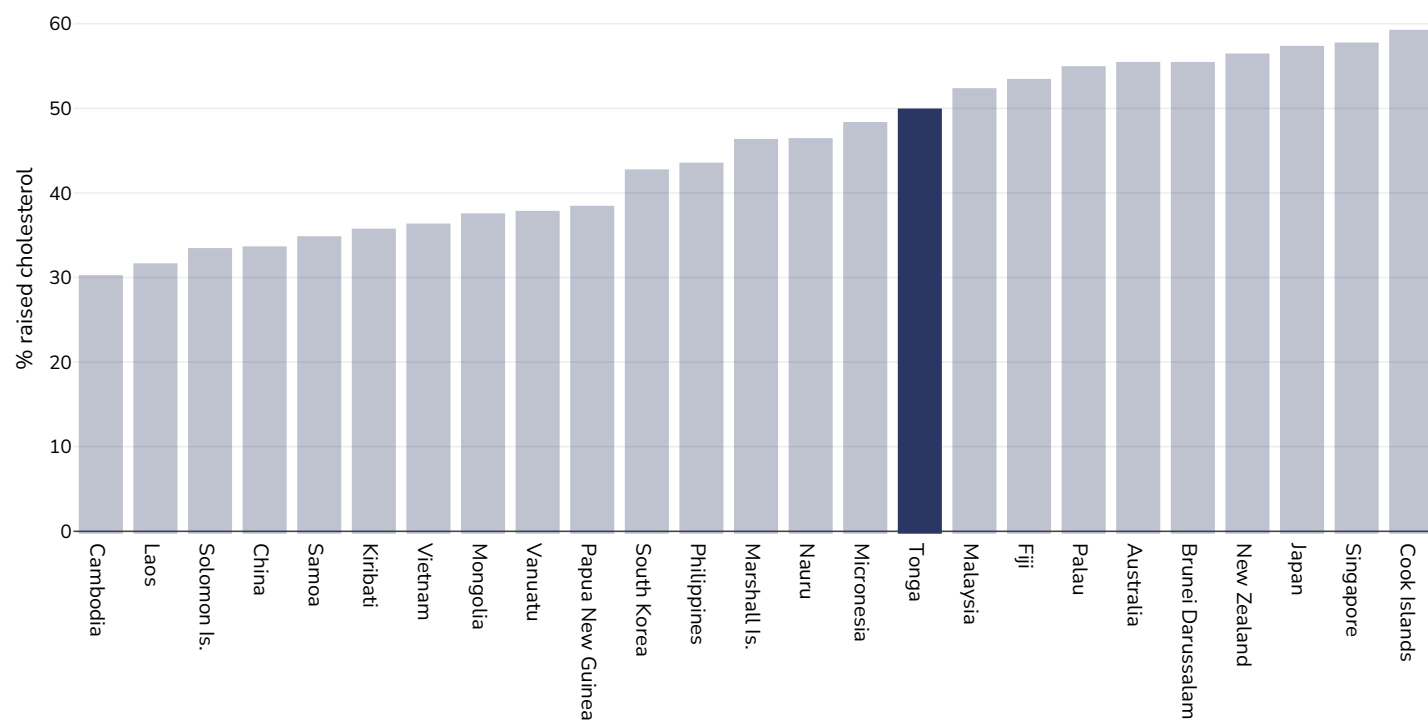


References: Global Health Observatory data repository, World Health Organisation, <http://apps.who.int/gho/data/node.main.A875?lang=en>

Definitions: Age Standardised estimated % Raised blood pressure 2015 (SBP $\geq$ 140 OR DBP $\geq$ 90).

Raised cholesterol

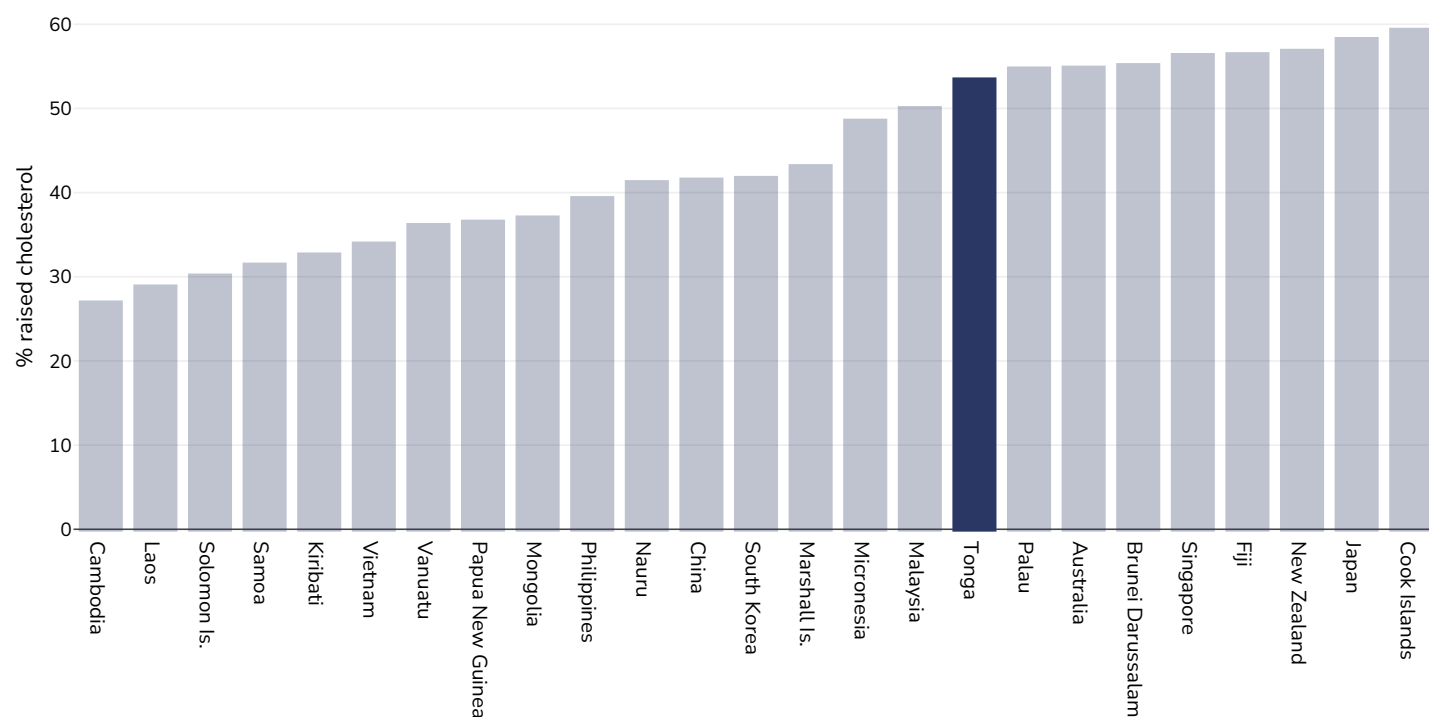
Adults, 2008



References: Global Health Observatory data repository, World Health Organisation, <http://apps.who.int/gho/data/node.main.A885>

Definitions: % Raised total cholesterol (≥ 5.0 mmol/L) (age-standardized estimate).

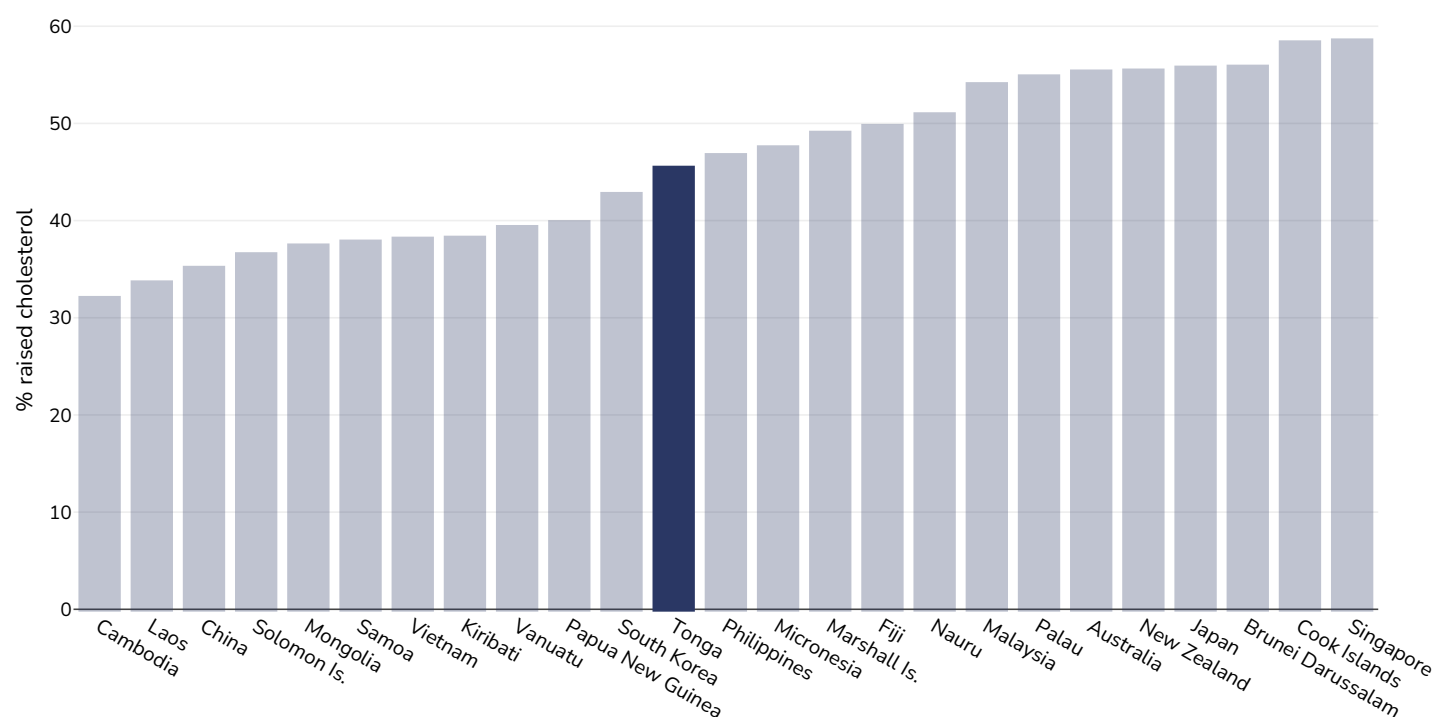
Men, 2008



References: Global Health Observatory data repository, World Health Organisation, <http://apps.who.int/gho/data/node.main.A885>

Definitions: % Raised total cholesterol (≥ 5.0 mmol/L) (age-standardized estimate).

Women, 2008

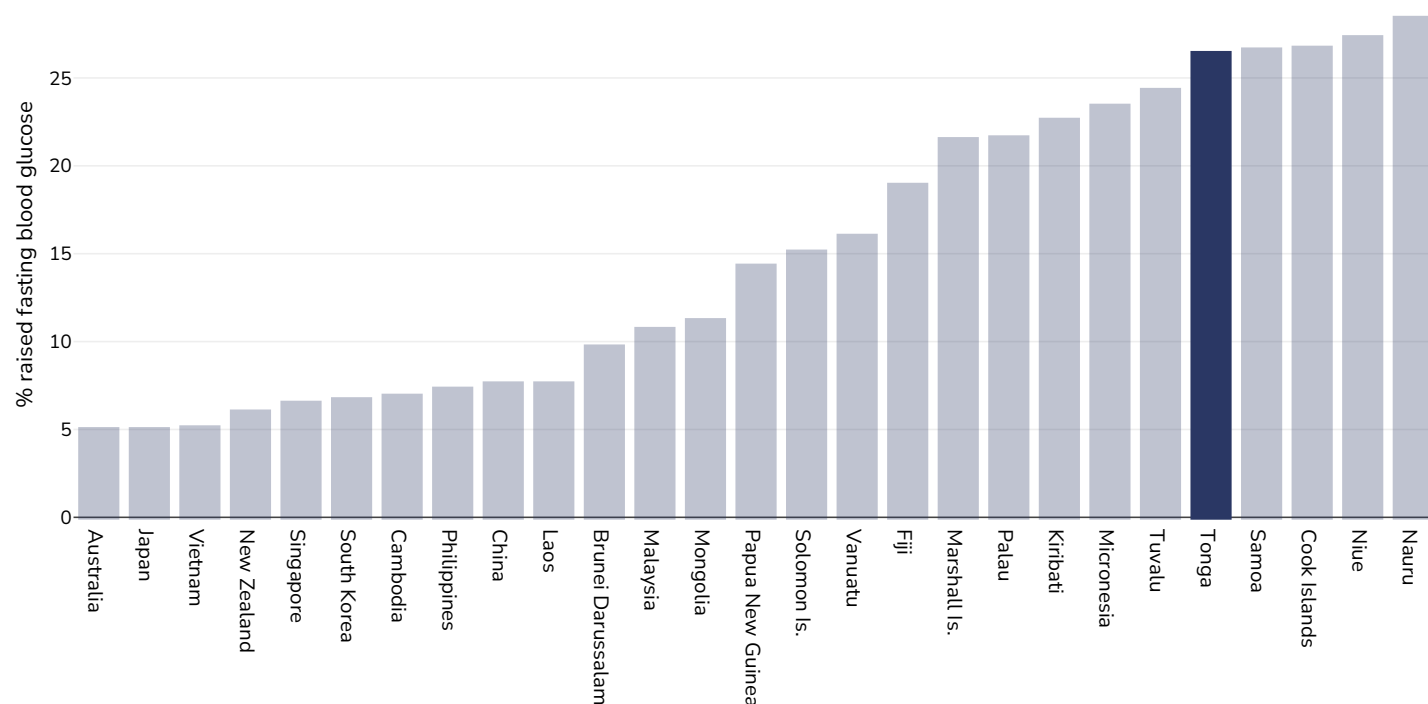


References: Global Health Observatory data repository, World Health Organisation, <http://apps.who.int/gho/data/node.main.A885>

Definitions: % Raised total cholesterol (≥ 5.0 mmol/L) (age-standardized estimate).

Raised fasting blood glucose

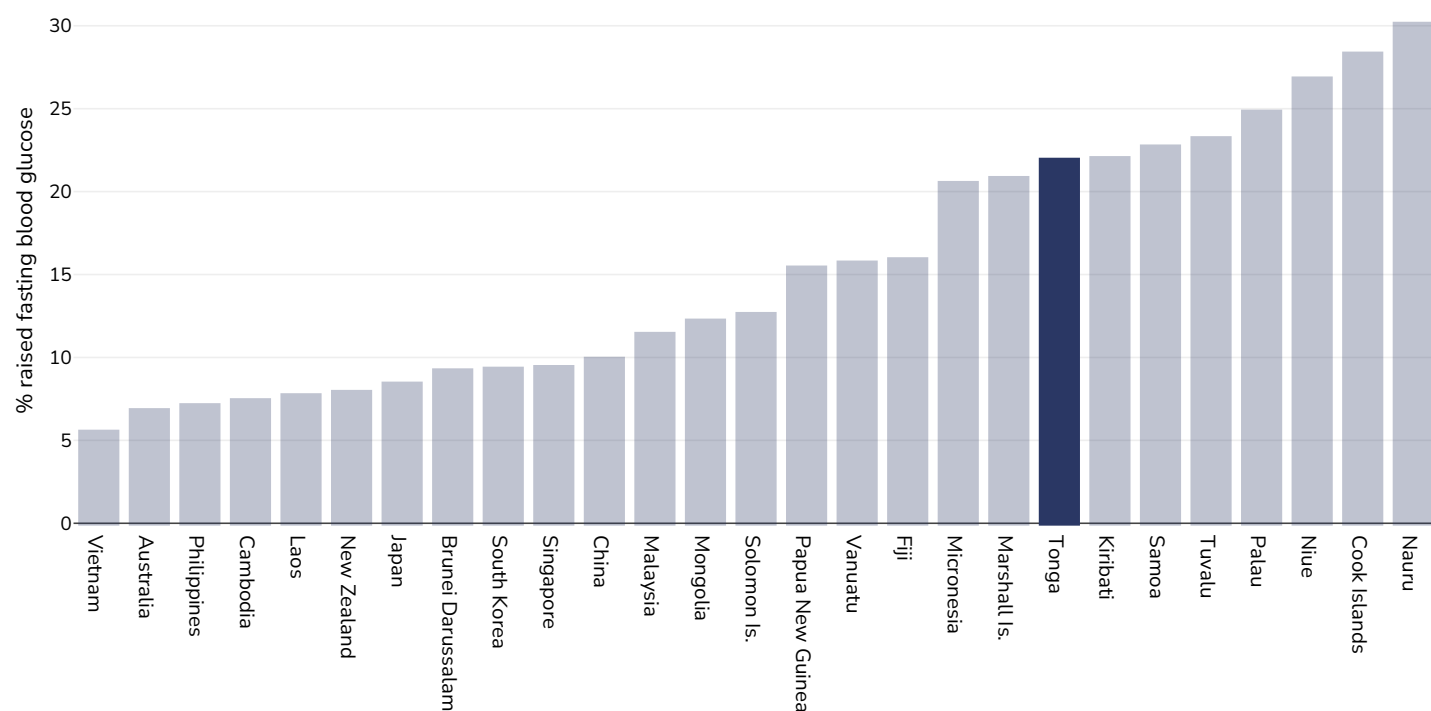
Men, 2014



References: Global Health Observatory data repository, World Health Organisation, <http://apps.who.int/gho/data/node.main.A869?lang=en>

Definitions: Age Standardised % raised fasting blood glucose (≥ 7.0 mmol/L or on medication).

Women, 2014

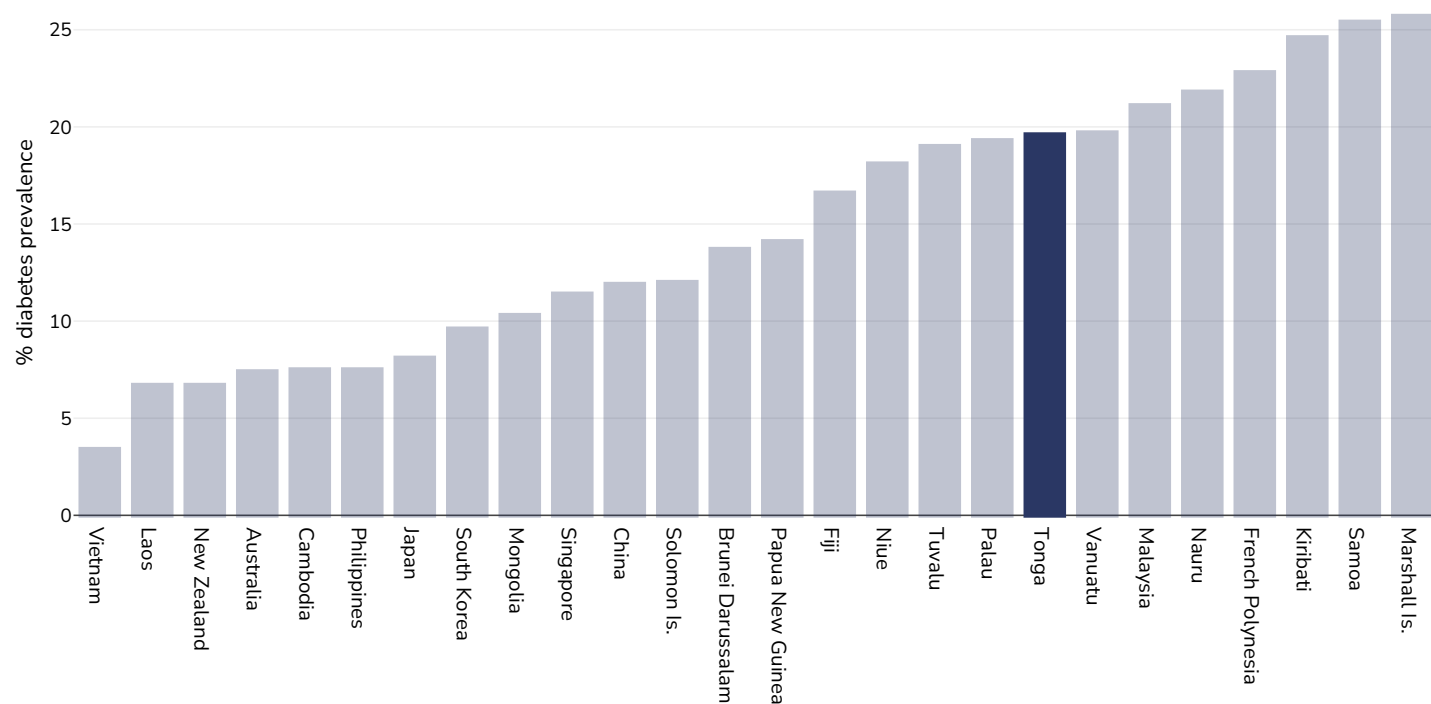


References: Global Health Observatory data repository, World Health Organisation, <http://apps.who.int/gho/data/node.main.A869?lang=en>

Definitions: Age Standardised % raised fasting blood glucose (≥ 7.0 mmol/L or on medication).

Diabetes prevalence

Adults, 2024



References:

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