



## Good Health and Well-Being pp 225–236

# Global and Planetary Health

Jack Parsons 

Reference work entry | [First Online: 01 January 2019](#)

**172** Accesses | **1** Citations

Part of the [Encyclopedia of the UN Sustainable Development Goals](#) book series (ENUNSDG)

## Definition

Global health describes human population health on a global scale and focuses particularly on health improvement internationally. The World Health Organization (WHO) is the main international agency linked to global health.

Global health is measured in relation to global disease burden, the reduction in health from all causes of death or illness globally. Disability-Adjusted Life Years and Quality-Adjusted Life Years (DALYs/QALYs) are commonly used metrics in measuring global health.

Planetary health describes the health of humanity globally and the health of the natural planetary systems on which it depends. Holistic planetary health has been defined as the "achievement of the highest attainable standard of health, wellbeing, and equity worldwide through judicious attention to the human systems ...that shape the future of humanity and the Earth's natural systems that define the safe environmental limits within which humanity can flourish" (Whitmee et al. [2015](#)). Global and...

---

This is a preview of subscription content, [access via your institution.](#)

---

**▼ Chapter****EUR 29.95**

Price includes VAT (Denmark)

- DOI: 10.1007/978-3-319-95681-7\_5
- Chapter length: 12 pages
- Instant PDF download
- Readable on all devices
- Own it forever
- Exclusive offer for individuals only
- Tax calculation will be finalised during checkout

[Buy Chapter](#)**▼ eBook****EUR 481.49**

Price includes VAT (Denmark)

- ISBN: 978-3-319-95681-7
- Instant PDF download
- Readable on all devices
- Own it forever
- Exclusive offer for individuals only
- Tax calculation will be finalised during checkout

[Buy eBook](#)**▼ Hardcover Book****EUR 687.49**

Price includes VAT (Denmark)

- ISBN: 978-3-319-95680-0
- Dispatched in 3 to 5 business days
- Exclusive offer for individuals only
- Free shipping worldwide  
[Shipping restrictions may apply, check to see if you are impacted.](#)
- Tax calculation will be finalised during checkout

[Buy Hardcover Book](#)[Learn about institutional subscriptions](#)

## References

---

African Population and Health Research Center (APHRC) (2014) Population and health dynamics in Nairobi's informal settlements: report of the Nairobi Cross-Sectional Slums Survey (NCSS) 2012. APHRC, Nairobi

---

Béguin A, Hales S, Rocklöv J et al (2011) The opposing effects of climate change and socio-economic development on the global distribution of malaria. *Glob Environ Chang* 21:1209–1214.  
<https://doi.org/10.1016/j.gloenvcha.2011.06.001>

---

CBD-WHO (2015) Connecting global priorities: biodiversity and human health, a state of knowledge review.

<https://www.cbd.int/health/SOK-biodiversity-en.pdf>. Accessed 15 Mar 2018

---

Chin M, Diehl T, Tan Q et al (2014) Multi-decadal aerosol variations from 1980 to 2009: a perspective from observations and a global model. *Atmos Chem Phys* 14:3657–3690.

<https://doi.org/10.5194/acp-14-3657-2014>

---

Dasgupta P (2010) Nature's role in sustaining economic development. *Philos Trans R Soc B Biol Sci* 365:5–11.

<https://doi.org/10.1098/rstb.2009.0231>

---

Egeghy PP, Judson R, Gangwal S et al (2012) The exposure data landscape for manufactured chemicals. *Sci Total Environ* 1(414):159–166.

<https://doi.org/10.1016/j.scitotenv.2011.10.046>

---

El-Zein A, Jabbour S, Tekce B et al (2014) Health and ecological sustainability in the Arab world: a matter of survival. *Lancet* 383(9915):458–476.

[https://doi.org/10.1016/S0140-6736\(13\)62338-7](https://doi.org/10.1016/S0140-6736(13)62338-7)

---

EU Commission (2014) Towards a circular economy: a zero waste programme for Europe.

<https://www.oecd.org/env/outreach/EC-Circular-economy.pdf>. Accessed 15 Mar 2018

---

Ezeh A (2016) Addressing planetary health challenges in Africa. *Public Health Rev* 37:1–5.

<https://doi.org/10.1186/s40985-016-0046-z>

---

FAO (2012) State of the world 's forests.

<http://www.fao.org/3/a-i3010e.pdf>. Accessed 15

Mar 2018

---

FAO (2014) The state of world fisheries and  
aquaculture <http://www.fao.org/3/a-i3720e.pdf>.

Accessed 15 Mar 2018

---

Foley JA, Monfreda C, Ramankutty N, Zaks D  
(2007) Our share of the planetary pie. Proc Natl  
Acad Sci 104(31):12585–12586.

<https://doi.org/10.1073/pnas.0705190104>

---

Gasparrini A, Guo Y, Sera F et al (2017)  
Projections of temperature-related excess  
mortality under climate change scenarios.  
Lancet Planet Health 1(9):360–367.

[https://doi.org/10.1016/S2542-5196\(17\)30156-0](https://doi.org/10.1016/S2542-5196(17)30156-0)

---

Gerland P, Raftery AE, Ševčíková H et al (2014)  
World population stabilization unlikely this  
century. Science 346(6206):234–237.

<https://doi.org/10.1038/42935>

---

Grandjean P, Herz KT (2011) Brain development and methylmercury: underestimation of neurotoxicity. *Mt Sinai J Med* 78(1):107–118.  
<https://doi.org/10.1002/msj.20228.BRAIN>

---

Handoh IC, Lenton TM (2003) Periodic mid-cretaceous oceanic anoxic events linked by oscillations of the phosphorus and oxygen biogeochemical cycles. *Global Biogeochem Cycles* 17(4):1–11.

<https://doi.org/10.1029/2003GB002039>

---

Holt AR, Hattam C (2009) Capitalizing on nature: how to implement an ecosystem approach. *Biol Lett* 5(5):580–582.

<https://doi.org/10.1098/rsbl.2009.0406>

---

Huang X, Zhang C, Hu R et al (2016) Association between occupational exposures to pesticides with heterogeneous chemical structures and farmer health in China. *Sci Rep* 6(25190):1–7.

<https://doi.org/10.1038/srep25190>

---

IGBP, IOC, SCOR (2013) Ocean acidification – summary for policymakers.

[http://www.igbp.net/download/18.30566fc6142425d6c91140a/1385975160621/OA\\_spm2-FULL-lorez.pdf](http://www.igbp.net/download/18.30566fc6142425d6c91140a/1385975160621/OA_spm2-FULL-lorez.pdf). Accessed 15 Mar 2018

---

IPCC (2014) Climate change 2014: impacts, adaptation, and vulnerability.

[https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-IntegrationBrochure\\_FINAL.pdf](https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-IntegrationBrochure_FINAL.pdf). Accessed 15 Mar 2018

---

Jamison DT, Summers LH, Alleyne G et al (2013) Global health 2035: a world converging within a generation. Lancet 382(9908):1898–1955.

[https://doi.org/10.1016/S0140-6736\(13\)62105-4](https://doi.org/10.1016/S0140-6736(13)62105-4)

---

Kawaguchi S, Ishida A, King R et al (2013) Risk maps for Antarctic krill under projected Southern Ocean acidification. Nat Clim Chang 3:843–847.

<https://doi.org/10.1038/nclimate1937>

---

Lambin EF, Meyfroidt P (2011) Global land use change, economic globalization, and the looming land scarcity. Proc Natl Acad Sci 108(9):3465–3472. <https://doi.org/10.1073/pnas.1100480108>

---

McMichael AJ, Campbell-Lendrum DH, Corvalan

CF et al (2003) Climate change and human health. World Health Organisation.

<http://www.who.int/globalchange/publications/climatechange.pdf>. Accessed 15 Mar 2018.

<https://doi.org/10.2307/2137486>

---

Myers SS, Patz JA (2009) Emerging threats to human health from global environmental change.

Annu Rev Environ Resour 34:223–252.

<https://doi.org/10.1146/annurev.environ.033108.102650>

---

Olinto P, Beegle K, Sobrado C, Uematsu H (2013) The state of the poor: where are the poor, where is extreme poverty harder to end, and what is the current profile of the world's poor? World Bank.

<http://siteresources.worldbank.org/EXTREMNE/Resources/EP125.pdf>. Accessed 15 Mar 2018

---

Persson LM, Breitholtz M, Cousins IT et al (2013)

Confronting unknown planetary boundary

threats from chemical pollution. Environ Sci

Technol 47(22):12619–12622.

<https://doi.org/10.1021/es402501c>

---

Pimm SL, Jenkins CN, Abell R et al (2014) The biodiversity of species and their rates of extinction, distribution, and protection. *Science* 344(6187):987–998.

<https://doi.org/10.1126/science.1246752>

---

Prüss-Ustün A, Corvalán C (2006) Preventing disease through healthy environments. World Health Organisation.

[http://www.who.int/quantifying\\_ehimpacts/publications/preventingdisease.pdf](http://www.who.int/quantifying_ehimpacts/publications/preventingdisease.pdf). Accessed 15 Mar 2018. <https://doi.org/10.1590/S1413-41522007000200001>

---

Prüss-Ustün A, Bartram J, Clasen T et al (2014) Burden of disease from inadequate water, sanitation and hygiene in low- and middle-income settings: a retrospective analysis of data from 145 countries. *Trop Med Int Health* 19(8):894–905. <https://doi.org/10.1111/tmi.12329>

---

Rockström J, Steffen W, Noone K et al (2009) Planetary boundaries: exploring the safe operating space for humanity. *Ecol Soc* 14(2):32. <https://doi.org/10.5751/ES-03180-140232>

---

Savilaakso S, Garcia C, Garcia-Ulloa J et al (2014) Systematic review of effects on biodiversity from oil palm production. Environ Evid 3(4):1–21. <https://doi.org/10.1186/2047-2382-3-4>

---

Scholes RJ, Biggs R (2005) A biodiversity intactness index. Nature 434(7029):45–49. <https://doi.org/10.1038/nature03289>

---

Steffen W, Richardson K, Rockström J et al (2015) Planetary boundaries: guiding human development on a changing planet. Science 347(6223):736–748. <https://doi.org/10.1126/science.1259855>

---

Sukhdev P, Wittmer H, Miller D (2014) The economics of ecosystems and biodiversity (TEEB): challenges and responses. <http://img.teebweb.org/wp-content/uploads/2014/09/TEEB-Challenges-and-Responses.pdf>. Accessed 15 Mar 2018. <https://doi.org/10.1093/acprof:oso/9780199676880.003.0007>

---

Suweis S, Rinaldo A, Maritan A, D'Odorico P  
(2013) Water-controlled wealth of nations. Proc  
Natl Acad Sci USA 110(11):4230–4233.  
<https://doi.org/10.1073/pnas.1222452110>

---

Tilman D, Cassman KG, Matson PA et al (2002)  
Agricultural sustainability and intensive  
production practices. Nature 418(6898):671–  
677. <https://doi.org/10.1038/nature01014>

---

UNEP (2013) Global chemicals outlook: towards  
sound management of chemicals.

<https://sustainabledevelopment.un.org/content/documents/1966Global%20Chemical.pdf>.

Accessed 15 Mar 2018

---

United nations (2005) The millennium  
development goals report 2005.

<https://unstats.un.org/unsd/mi/pdf/MDG%20Book.pdf>. Accessed 15 Mar 2018.

<https://doi.org/10.1177/1757975909358250>

---

Whitmee S, Haines A, Beyrer C et al (2015) Safeguarding human health in the Anthropocene epoch: report of the Rockefeller Foundation-Lancet Commission on planetary health. Lancet 386(10007):1973–2028.

[https://doi.org/10.1016/S0140-6736\(15\)60901-1](https://doi.org/10.1016/S0140-6736(15)60901-1)

---

Wilkinson P, Smith KR, Davies M et al (2009) Public health benefits of strategies to reduce greenhouse-gas emissions: household energy. Lancet 374(9705):1917–1929.

[https://doi.org/10.1016/S0140-6736\(09\)61713-X](https://doi.org/10.1016/S0140-6736(09)61713-X)

---

WWF International, Zoological Society of London, Global Footprint Network, Water Footprint Network (2014).

[https://www.wwf.or.jp/activities/data/WWF\\_LPR\\_2014.pdf](https://www.wwf.or.jp/activities/data/WWF_LPR_2014.pdf). Accessed 15 Mar 2018

---

Yasuoka J, Levins R (2007) Impact of deforestation and agricultural development on Anopheline ecology and malaria epidemiology. Am J Trop Med Hyg 76(3):450–460.

<https://doi.org/10.4269/ajtmh.2007.76.450>

---

You D, Hug L, Chen Y, et al (2014) Levels and trends in child mortality. Unicef.  
[https://www.unicef.org/media/files/Levels\\_and\\_Trends\\_in\\_Child\\_Mortality\\_2014.pdf](https://www.unicef.org/media/files/Levels_and_Trends_in_Child_Mortality_2014.pdf). Accessed 15 Mar 2018

---

## Author information

---

### Authors and Affiliations

#### **University of Oxford, Oxford, UK**

Jack Parsons

Corresponding author

Correspondence to [Jack Parsons](#).

## Editor information

---

### Editors and Affiliations

#### **European School of Sustainability Science and Research, Hamburg University of Applied Sciences, Hamburg, Germany**

Walter Leal Filho

#### **International Centre for Thriving, University of Chester, Chester, UK**

Tony Wall

#### **Center for Neuroscience and Cell Biology and Institute for Interdisciplinary, Research of the University of Coimbra, Coimbra, Portugal**

Anabela Marisa Azul

**Passo Fundo University Faculty of Engineering  
and Architecture, Passo Fundo, Brazil**

Luciana Brandli

**Istinye University, Istanbul, Turkey**

Pinar Gökcin Özuyar

**Rights and permissions**

---

[\*\*Reprints and Permissions\*\*](#)

**Copyright information**

---

© 2020 Springer Nature Switzerland AG

**About this entry**

---

## Cite this entry

Parsons, J. (2020). Global and Planetary Health. In: Leal Filho, W., Wall, T., Azul, A.M., Brandli, L., Özuyar, P.G. (eds) Good Health and Well-Being. Encyclopedia of the UN Sustainable Development Goals. Springer, Cham. [https://doi.org/10.1007/978-3-319-95681-7\\_5](https://doi.org/10.1007/978-3-319-95681-7_5)

[.RIS](#) [.ENW](#) [.BIB](#)

## DOI

[https://doi.org/10.1007/978-3-319-95681-7\\_5](https://doi.org/10.1007/978-3-319-95681-7_5)

Published	Publisher Name	Print ISBN
26 September 2019	Springer, Cham	978-3-319-95680-0

Online ISBN	eBook Packages
978-3-319-95681-7	<a href="#">Earth and Environmental Science Reference Module Physical and Materials Science</a>

Not logged in - 80.71.142.101

Not affiliated

**SPRINGER NATURE**

© 2022 Springer Nature Switzerland AG. Part of [Springer Nature](#).