

Monitoring the changing health progress of climate change

Kim van Daalen | Research Fellow Lancet Countdown Europe & PhD Candidate University of Cambridge
@daalenkim | @LancetCountdown | LCDEurope | kim.vandaalen@lancetcountdown.org





Climate Change, Global Health and UCL



2009



2015

THE LANCET

June, 2015

www.thelancet.com

Health and climate change



“Tackling climate change could be the greatest global health opportunity of the 21st century.”

Lancet and University College London Institute for Global Health Commission

Managing the health effects of climate change

*Anthony Costello, Mustafa Abbas, Adriana Allen, Sarah Ball, Sarah Bell, Richard Bellamy, Sharon Friel, Nara Groce, Anne Johnson, Maria Kett, Maria Lee, Caren Levy, Mark Maslin, David McCoy, Bill McGuire, Hugh Montgomery, David Napier, Christina Pagel, Jinesh Patel, Jose Antonio Puppim de Oliveira, Nanneke Redclift, Hannah Rees, Daniel Rogger, Joanne Scott, Judith Stephenson, John Twigg, Jonathan Wolff, Craig Patterson**

“Climate change is the biggest global health threat of the 21st century”

A Commission by *The Lancet*

Tracking Progress on Health and Climate Change

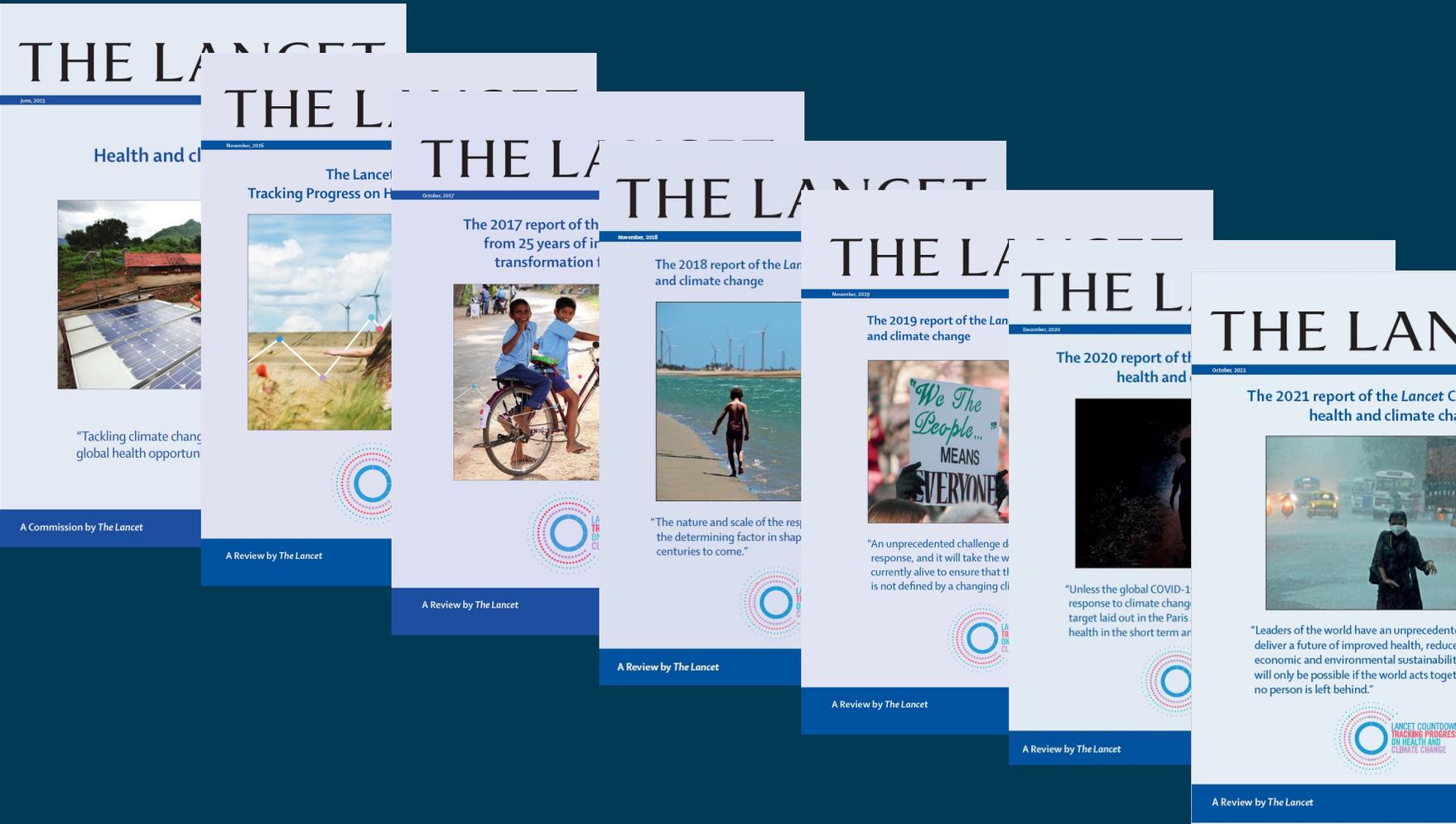


LANCET COUNTDOWN:
TRACKING PROGRESS
ON HEALTH AND
CLIMATE CHANGE

~100 Collaborating Institutions Around the World



Health, Climate Change & The Lancet



THE LANCET

October, 2022 www.thelancet.com

The 2022 report of the Lancet Countdown on health and climate change

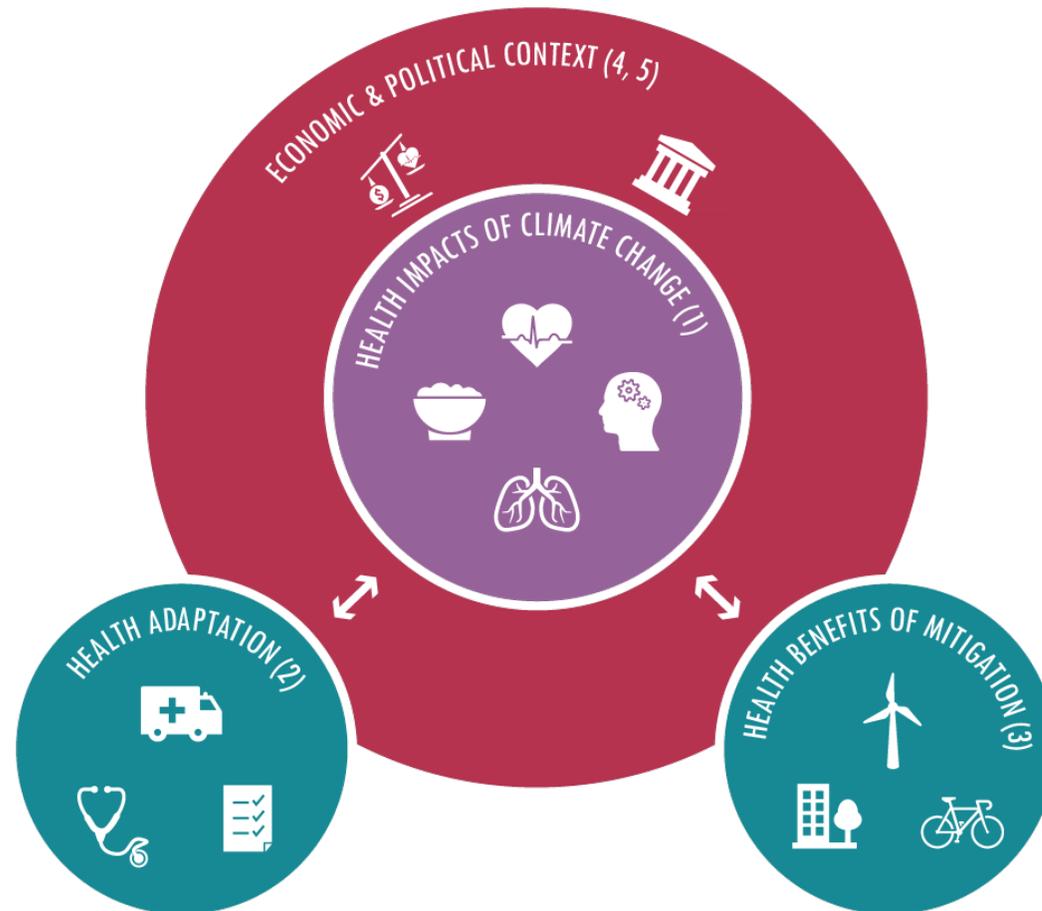
"Countries and companies continue to make choices that threaten the health and survival of people in every part of the world...At this critical juncture, an immediate, health-centred response can still secure a future in which world populations can not only survive, but thrive."

LANCET COUNTDOWN: TRACKING PROGRESS ON HEALTH AND CLIMATE CHANGE

A Review by The Lancet

The five working groups of the Lancet Countdown

THE FIVE WORKING GROUPS OF THE LANCET COUNTDOWN





Regional Centres



LANCET COUNTDOWN:
**HEALTH AND
CLIMATE CHANGE
IN AUSTRALIA**



LANCET COUNTDOWN:
**HEALTH AND
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IN AFRICA**



LANCET COUNTDOWN:
**HEALTH AND
CLIMATE CHANGE
SMALL ISLAND DEVELOPING STATES**



Regional Lancet Countdown Reports



The 2022 Europe report of the *Lancet* Countdown on health and climate change: towards a climate resilient future

Kim Rvan Daalen, Marina Romanello, Joacim Rocklöv, Jan C Semenza, Cathryn Tonne, Anil Markandya, Niheer Dasandi, Slava Jankin, Hicham Achebak, Joan Ballester, Hannah Bechara, Max W Callaghan, Jonathan Chambers, Shouro Dasgupta, Paul Drummond, Zia Farooq, Olga Gasparyan, Nube Gonzalez-Reviriego, Ian Hamilton, Risto Hänninen, Aleksandra Kazmierczak, Vladimir Kendrovski, Harry Kennard, Gregor Kiesewetter, Simon J Lloyd, Martin Lotto Batista, Jaime Martinez-Urtaza, Carles Milà, Jan C Minx, Mark Nieuwenhuijsen, Julia Palamarchuk, Marcos Quijal-Zamorano, Elizabeth J Z Robinson, Daniel Scamman, Oliver Schmoll, Maquins Odhiambo Sewe, Henrik Sjödin, Mikhail Sofiev, Balakrishnan Solaraju-Murali, Marco Springmann, Joaquin Triñanes, Josep M Anto, Maria Nilsson, Rachel Lowe



The 2022 report of the *MJA–Lancet* Countdown on health and climate change: Australia unprepared and paying the price

Paul J Beggs, Ying Zhang, Alice McGushin, Stefan Trueck, Martina K Linnenluecke, Hilary Bambrick, Anthony G Capon, Sotiris Vardoulakis, Donna Green, Arunima Malik, Ollie Jay, Maddie Heenan, Ivan C Hanigan, Sharon Friel, Mark Stevenson, Fay H Johnston, Celia McMichael, Fiona Charlson, Alistair J Woodward and Marina B Romanello
Med J Aust 11 doi: 10.5694/mja2.51742
Published online: 26 October 2022



The 2022 China report of the *Lancet* Countdown on health and climate change: leveraging climate actions for healthy ageing



Wenjia Cai*, Chi Zhang*, Shihui Zhang*, Yuqi Bai, Max Callaghan, Nan Chang, Bin Chen, Huiqi Chen, Liangliang Cheng, Xueqin Cui, Hancheng Dai, Bawuerjiang Danna, Wenxuan Dong, Weicheng Fan, Xiaoyi Fang, Tong Gao, Yang Geng, Dabo Guan, Yixin Hu, Junyi Hua, Cunrui Huang, Hong Huang, Jianbin Huang, Linlang Jiang, Qiaolei Jiang, Xiaopeng Jiang, Hu Jin, Gregor Kiesewetter, Lu Liang, Borong Lin, Hualiang Lin, Huan Liu, Qiyong Liu, Tao Liu, Xiaobo Liu, Xinyuan Liu, Zhao Liu, Zhu Liu, Shuhan Lou, Chenxi Lu, Zhenyu Luo, Wenjun Meng, Hui Miao, Chao Ren, Marina Romanello, Wolfgang Schöpp, Jing Su, Xu Tang, Can Wang, Qiong Wang, Laura Warnecke, Sanmei Wen, Wilfried Winiwarter, Yang Xie, Bing Xu, Yu Yan, Xiu Yang, Fanghong Yao, Le Yu, Jiacan Yuan, Yiping Zeng, Jing Zhang, Lu Zhang, Rui Zhang, Shangchen Zhang, Shaohui Zhang, Qi Zhao, Dashan Zheng, Hao Zhou, Jingbo Zhou, Margaret Fu-Chun Chan Fung, Yong Luo†, Peng Gong†



The 1st 2022 South America Report of the Lancet Countdown, coming up soon!

The Lancet Countdown in Europe



The 2022 Europe report of the *Lancet* Countdown on health and climate change: towards a climate resilient future



Kim R van Daalen, Marina Romanello, Joacim Rocklöv, Jan C Semenza, Cathryn Tonne, Anil Markandya, Niheer Dasandi, Slava Jankin, Hicham Achebak, Joan Ballester, Hannah Bechara, Max W Callaghan, Jonathan Chambers, Shouro Dasgupta, Paul Drummond, Zia Farooq, Olga Gasparyan, Nube Gonzalez-Reviriego, Ian Hamilton, Risto Hänninen, Aleksandra Kazmierczak, Vladimir Kendrovski, Harry Kennard, Gregor Kiesewetter, Simon J Lloyd, Martin Lotto Batista, Jaime Martínez-Urtaza, Carles Milà, Jan C Minx, Mark Nieuwenhuijsen, Julia Palamarchuk, Marcos Quijal-Zamorano, Elizabeth J Z Robinson, Daniel Scamman, Oliver Schmoll, Maquins Odhiambo Sewe, Henrik Sjödin, Mikhail Sofiev, Balakrishnan Solaraju-Murali, Marco Springmann, Joaquin Triñanes, Josep M Anto, Maria Nilsson, Rachel Lowe





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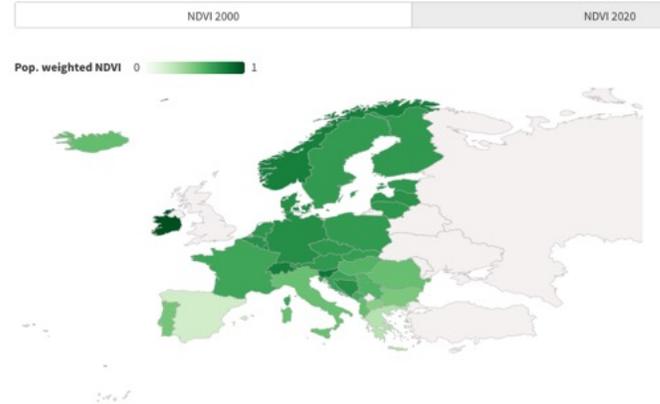
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Piotr Kwiater, REDISCOVER Nature/EEA

Exposure to green space

Population-weighted Normalized Difference Vegetation Index (NDVI) by country in 2000 and 2020.

This indicator tracks exposure to green space, measured by the population-weighted Normalized Difference Vegetation Index (NDVI) at the country level. NDVI quantifies photosynthetically active vegetation by measuring the difference between near-infrared (which vegetation strongly reflects) and red light (which vegetation absorbs). NDVI values range from +1.0 to -1.0.



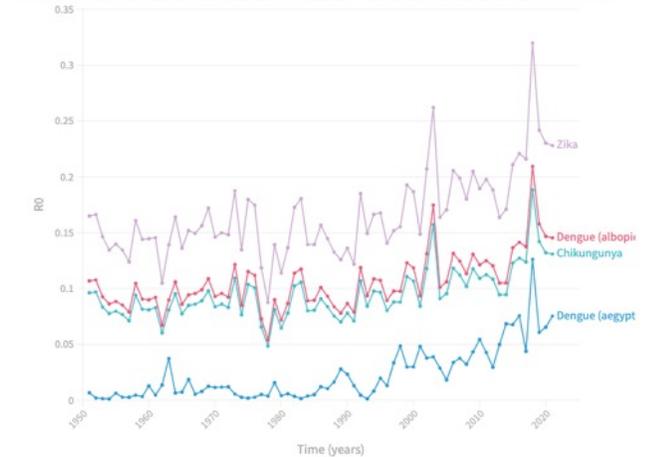
Please reference the 2022 Report of the Lancet Countdown in Europe if using this data. For a full description of the indicator, see the 2022 report of the Lancet Countdown in Europe at lancetcountdown.org. The 38 European Environment Agency (EEA) member and cooperating countries are presented. For Cyprus, Turkey, and Kosovo (under UNSCR 1244/99) data was unavailable.



Climate Suitability for the Transmission of Dengue, Zika and Chikungunya in Europe

Basic reproduction number (R0) for Dengue, Zika and Chikungunya transmission.

The basic reproduction number of Dengue (*Aedes albopictus*), Dengue (*Aedes aegypti*), Zika and Chikungunya is calculated using a model to capture the influence of temperature and rainfall on vectorial capacity and vector abundance, and overlaying it with human population density data to estimate the R0 (the expected number of secondary infections resulting from one infected person).



Please reference the 2022 Report of the Lancet Countdown in Europe if using this data. For a full description of the indicator, see the 2022 report of the Lancet Countdown in Europe at lancetcountdown.org. Europe refers to the EEA member and cooperating countries, and the United Kingdom





Supporting the development of standardized national observatories

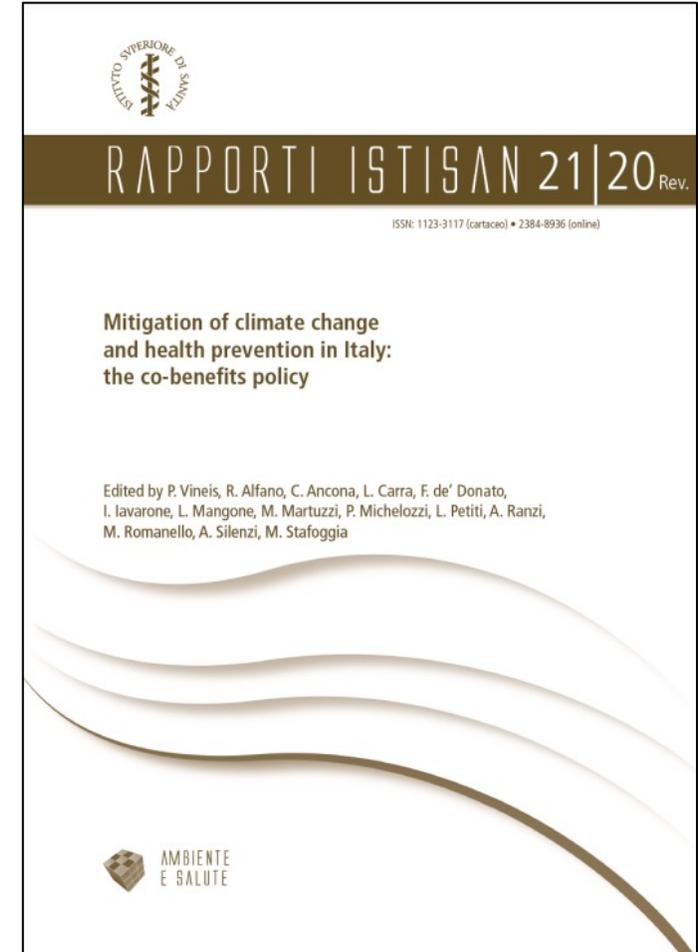


Case example: Italy's national health and climate change observatory

- Co-developed with the National Institute for Health
- Using the Lancet Countdown indicators as a starting point and framework
- Complementing with national data whenever better one is available

Advantages:

- Comprehensive framework
- Peer-reviewed and globally recognized by health community
- Standardized reporting, comparable metrics
- Flexible to the incorporation of local data



Thank you

www.lancetcountdown.org
info@lancetcountdown.org
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europe@lancetcountdown.org
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